THE CITY IN EARLY HISTORICAL INDIA

A. GHOSH

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Born in Varanasi in 1910, **Mr A. Ghosh** was educated in Varanasi and Allahabad, and later on received advanced training at the Institute of Archaeology of the University of London. He joined the Archaeological Survey of India in 1937 and was the Director General of the Survey from 1953 to 1968. Subsequently he acted as Unesco Consultant on Archaeology to the Government of Qatar (1968), Bahrain (1968), Saudi Arabia (1968-69), and Yemen Arab Republic (1970). He was a Fellow of the Indian Institute of Advanced Study from 1968 to 1971.

Mr Ghosh was Vice-President of the Royal India, Pakistan and Ceylon Society, London; Honorary Fellow, Society of Antiquaries, London; Honorary Fellow, Deutsches Archaeologisches Institut, Berlin-Dahlem; Member, Parmanent Council of the International Congress of Prehistoric and Protohistoric Sciences; Member, International Council of Museums; and Honorary Correspondent, Archaeological Survey of India. He received the decoration of Padmasri from the President of India in 1962.

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Foreword

The author of this book is no longer alive to update his work, and it is difficult for anyone else to do it. But this monograph remains important to scholars as much for the questions it raises as for the answers it gives to several basic questions on the processes of urbanization in India.

Based on a critical examination of both literary and archaeological evidence, this short study touches upon the material and cultural aspects of early Indian civilization. Though produced nearly two decades ago, it is still rather indispensable for the serious student of socio-economic and socio-cultural history of ancient India. That is the primary reason why it has been reprinted.

J.S. GREWAL
Director

Shimla
December 22, 1989

Preface

The following pages embody the results of my work at the Indian Institute of Advanced Study, where I was appointed a Fellow in 1968. In undertaking the study I had no desire of propounding any theory or building any model; my sole intention was to examine and present systematically, in a concise form, one of the facets, namely the coming into being of cities, of the early historical period of India, which was an age of innovations and was therefore remarkable and fascinating in many respects.

The source-material is not as abundant as one would have liked it to be. This stands in the way of a full evaluation of the early historical cities in all their material and cultural aspects. While the description of cities in literature follows a stereotype, the archaeological evidence is woefully insufficient and only emphasizes the need of laying bare the remains of a few early cities on an extensive scale. Only then shall we be able to understand them at least to the extent to which we understand the Indus cities. Meanwhile, the present stock-staking of our existing knowledge will serve to highlight its inadequacy and the necessity of further work in the field.

Mr M. C. Joshi, Superintending Archaeologist, Archaeological Survey of India, and Dr B. D. Chattopadhyaya, of the Jawaharlal Nehru University, helped me with a few references. The latter also went through the manuscript and made valuable suggestions. I am beholden to both of them. My thanks are also due to Mr Jassu Ram, Draftsman, Archaeological Survey of India, for the map showing the early historical cities.

A. GHOSH

Bankuli
New Delhi 37
May 31, 1972.

Contents

CHAPTER		PAGE
I.	Introduction	1
II.	Theories on pre-industrial urbanism ...	18
III.	Units of settlement	32
IV.	The city in literature	43
V.	The archaeological evidence	58
VI.	Survival? Revival? Import?	73
VII.	Conclusion	89
	Index	91
	Map showing early historical cities ...	facing 90

CHAPTER I

Introduction

1. The background
2. The later Vedic age
3. Iron in north India; the Painted Grey Ware
4. Iron in south India; the megalithic culture
5. Iron in central and east India
6. The early historical period
7. The city in the early historical period
8. Sources of information

THE Indus civilization, which gave the Indian sub-continent its first cities, has been extensively studied, and a voluminous literature has grown up around it.[1] Vigorous attempts have been made to trace its origins, particularly from the earlier and partly contemporary peasant-cultures of the Baluchistan highlands, but with doubtful success.[2] It is, however, certain that

1 B. M. Pande and K. S. Ramachandran, *Bibliography of the Harappa Culture,* Field Research Projects, Miami, 1971.

2 The latest remarks of Wheeler on the subject are relevant: 'But whether they (*scil.* the ill-sorted industries and cultures of the Baluch hills) will ever throw any very revealing light upon the origins of the great valley civilization is increasingly doubtful. None of them shows any clear primary and organic relationship with the Indus-valley culture, which remains obstinately a creation of its own lowland environment.' Mortimer Wheeler, *The Indus Civilization,* third edition, Cambridge, 1968, p. 9. Mughal, on the other hand, sees in the Harappa civilization the climax and intensification of processes leading to urbanization which had already started earlier, Mohammad Rafique Mughal, *The Early Harappan Period in the Greater Indus Valley and Northern Baluchistan;* only its synopsis has been seen by me, *Dissertation Abstract International,* XXXII, 2, 1971.

these cultures had not reached the urban stage and could not have given the Indus civilization its urbanism. While the idea of the Indus urbanism might have been inspired by the contemporary Sumerian cities, all question of borrowing must end there. In all respects the Indus cities were *sui generis*.

For her next cities, her 'second urbanization', India had to wait for over a thousand years after the disappearance of the Indus cities—till the middle of the sixth century B.C., which saw simultaneously the beginnings of her historical period. The innovations that took place in this epoch in social structure and religious thoughts are well-known and have been dealt with in books of history. The material innovations of the period are now much better known, often by contrast with the conditions obtaining in the preceding millennium, on which, as a result of brisk field-work, we have now ampler information than we had twenty years back. While much more remains to be known, the broad pattern of the cultures of that millennium is discernible, if faintly at places. Admirable attempts have been made to analyse and present systematically the available data, to much of which chronological precision has now been added by Carbon-14 determinations.[3] Unlike the Indus civilization, which had cut across geographical regions, these cultures thrived in definite regions, and efforts have been made to identify the regions ecologically[4] and with present-day linguistic zones.[5] The need for regional studies, as distinct from generalizations for the whole of India, has all along been emphasized.[6]

To lay stress on the regional character of these Copper-Bronze Age cultures is not to deny their mutual contacts in so far as they were contemporary and the practice of extra-regional trade. In fact, trade is essential in, and is one of the diagnostic

3 Only two such recent publications may be mentioned: Bridget and Raymond Allchin, *The Birth of Indian Civilization,* Penguin, Harmondsworth, 1968, and D. P. Agrawal, *The Copper Bronze Age in India,* New Delhi, 1971.

4 Benapudi Subbarao, *The Personality of India,* second edition, Baroda, 1958.

5 S. C. Malik, *Indian Civilization : the Formative Period,* Simla, 1968.

6 A. Ghosh, Presidential Address to the All-India Oriental Conference, Seventeenth Session, Archaeology Section, Ahmadabad, 1953; Presidential Address to the Indian History Congress, Sixteenth Session, Section I, Waltair, 1953; 'A survey of the recent progress in Indian archaeology,' Ernst Waldschmidt (ed.), *Indologen Tagung, 1959,* Göttingen, 1960, p. 42.

traits of, any post-neolithic economy; at least metal had to be brought from distant mines to regions which had none of their own. Particularly, imports were essential in the alluvial plains for any society which had outgrown neolithic self-sufficiency.[7] How far some of these cultures imported objects and ideas from outside India or should be regarded as immigrant ones is controversial but need not detain us here.

The following, according to Childe, were the long-term effects of the introduction of bronze into neolithic societies:[8]

(1) It gave the people more efficient means of production (such as the plough and the wheel) and implements of destruction (such as the saw).

(2) Two theoretical sciences, which can be traced back to practical sciences, originated. They are (i) the transmutation of ores into metal by heating them with carbon, and (ii) systematic prospecting for metal.

(3) Organized international trade was initiated as a result of the need for the import of metal.

(4) The demand for a regular supply of metal evoked a new population of whole-time, non-food-producing specialists.

(5) This again involved the production and accumulation of a relatively great surplus of food, which could be made available to metal-prospectors and -workers.

(6) A totalitarian regime, such as that of the pharaohs of Egypt and the temple-priests of Sumer, was required and grew up to channelize the surplus.

These conclusions, based on Egyptian and Sumerian conditions, are equally applicable to the Harappa civilization. But the full applicability of all of them to the post-Harappan cultures is doubtful. It is likely that the whole cultural process that the Bronze Age set in motion elsewhere did not operate in full in these cultures, where the use of metals was limited,[9] and the need for specialists and a surplus of food to feed them was

7 V. Gordon Childe, *What Happened in History,* Penguin, Harmondsworth, 1942, p. 90.

8 V. Gordon Childe, 'The Bronze Age,' *Past and Present,* 12 November 1957, pp. 2 to 15.

9 An exception to this is the nebulous Copper Hoard Culture.

equally restricted. It can be safely said that these cultures failed to reach the next stage—the urban one. Urbanism had no continuous tradition in India.

2

The antecedents of the cities of north India in the early historical period are not entirely in the dark. Several facts and reasonable inferences stand out. By then the early Vedic age, represented by the bulk of the *Ṛgveda-Saṁhitā,* had given way to the later Vedic age. The centre of Aryan activity had shifted to the eastern Indus and upper Ganga basins from the horizon farther north-west, including the eastern part of Afghanistan, and there are stray evidences of expansion farther east and south. The vast plains of the north now lay before the Aryans, with immense potentialities for expansion and exploitation. Kingship was now much less nebulous than before, and kingdoms had been established. The loyalty of the people had been transferred from tribal organizations to politico-geographical units. A less exclusive attitude to the earlier inhabitants of the land had grown up, and definite places, often very degraded, had been found for them in the society. Intermarriage with autochthones, though theoretically looked down upon, had resulted in new populations. Aryan influences had infiltrated into regions away from the focus of Aryan activity, their strength and capacity to survive depending on the extent of colonization and assertiveness of the colonizers. Of all the non-Aryan elements the weakest was the languages, which rapidly yielded to the Aryan language except in the south and in remote pockets, leaving behind some words, idioms and phonetic characteristics.[10] In short, the early Aryan society had made room for the Indian society, in which it is difficult to isolate Aryan and non-Aryan elements. It is, at the same time, risky to see the non-Aryan in whatever elements did not exist in early Aryan society; that would be to deny to the Aryan culture any dynamism and capacity to evolve. There has been

10 Too much need not be made of the non-Sanskritic elements in the origin and development of the Prakrit dialects. Taking the inscriptions of Aśoka as an example, there is hardly any word there which has a non-Sanskritic affiliation, except of course proper names.

a tendency during the last few decades to decry and minimize the Aryan factor in Indian civilization. This is without justification.[11]

3

In the field of technology, iron had come into use by this time. The date and mechanism of its introduction are not entirely certain, in spite of recent work on the subject.[12] It is futile to reopen the question whether iron was known to the early Indo-Aryans or whether *ayas* meant only copper to them; perhaps the dispute will never be settled to everybody's satisfaction. But the metal was definitely used by the later Vedic Aryans. Initially the iron ores of Rajasthan are more likely to have been exploited than the richer deposits farther east and south, for the requirements could not have been heavy.

Archaeologically, the metal was coeval in the north with the Painted Grey Ware, as is amply attested at Hastināpura, Atranjikhera and Noh, all in the upper Ganga-Yamuna *doāb*, and Bairat to its west,[13] though it is not necessary that at all these sites the earlier stage of the Ware is represented. Carbon-14 determinations have given 800 to 400 B.C. as the upper and lower dates of the Ware; the date 1025 ± 100 B.C. for a sample from the lower levels of Atranjikhera stands isolated at present and is not a sure ground for pushing back the first date to the twelfth, eleventh or tenth century B.C., though the need for further investigation may be stressed.[14]

Whether the Aryans should be regarded as the authors of the Painted Grey Ware or not has been a matter of dispute. While most Indian scholars have held that they were, others

11 This tendency has been largely the result of the spectacular discovery of the Indus civilization, a by-product of which has been the running high of pseudo-patriotism. This has not much abated; on the contrary, parochialism has now been added to it. An objective assessment of the possible survivals of the Indus civilization has been attempted in chapter VI below.

12 Particularly N. R. Banerjee. *The Iron Age in India*, Delhi, 1965.

13 *Ibid.*, p. 216. The latest information is that at Noh iron has been found in the preceding black-and-red ware deposits. Information from Dr N. R. Banerjee.

14 Agrawal, *op. cit.*, pp. 100 and 107.

have doubted it. It is not necessary to reconsider the matter here in detail, and it would suffice to emphasize that the geographical horizon of the later Aryans is conterminous with that of the Ware; there is also a remarkable chronological proximity between the dates of the beginning of the Ware and the later Vedic age, which no critical scholar would place before the start of the first millennium B.C. There can, therefore, be no reasonable doubt in ascribing the Ware to the later Aryans, together with the vast mass of red ware associated with it; otherwise, we shall have to find some other diagnostic ware within these chronological and spatial limits. The earlier Aryans may have produced some other pottery, and the so-called ochre-coloured ware and the black-and-red ware,[15] both predecessors of the Painted Grey Ware, in that order, naturally come to one's mind, but all this has little relevance here.[16]

15 Vedic literature is poor in references to the pottery that the people used. Such references as are avaliable refer to the manufacture of ritualistic and not domestic pottery. See M. S. Pandey, 'Potteries in Brāhmaṇical literature,' B. P. Sinha (ed.), *Potteries in Ancient India*, Patna, pp. 155 to 160. The *Atharvaveda-Saṁhitā* of the Śaunaka recension, IV, 17, 4, refers to the *āma* (unbaked) and *nīla-lohita* ware, which latter, the present author pointed out a few years back, can only refer to the black-and-red ware, the literal translation of *nīla-lohita* (if any equation with archaeological pottery need by attempted at all), and not to the Painted Grey Ware, as N. R. Banerjee wanted to make out, V. N. Mishra and M. S. Mate (ed.), *Indian Prehistory : 1964*, Poona, 1965, pp. 204 and 193. Banerjee now thinks that the *āma* ware of the text was the Painted Grey Ware with its unbaked look and the *nīla-lohita* the black-and-red ware, *op. cit.*, 1965, p. 235, n. 33. The hymn in question is an invocation for the destruction of those who put their magic-spells in unburnt and *nīla-lohita* vessels. There is nothing to indicate that the vessels were in common use by the Aryans; if anything, the indication is that they were not favoured by the Atharvavedins. Maurice Bloomfield in his translation of the *Atharvaveda-Saṁhitā*, Sacred Books of the East, XLII, Oxford, 1897, p. 97, unconvincingly regards *nīla-lohita* as an adjective of 'thread', which does not appear in the text. Sāyaṇa explains *nīla-lohita* with remarkable scientific precision: that (pottery) which was made in a fire-kiln where the fire was *nīla* on account of the emission of smoke and *lohita* on account of burning, thus explaining the combined process of carbonization and oxidization that went into the making of the black-and-red ware.

16 It is not necessary for our purpose to discuss whether the Aryans entered India in one, two or more waves. On the basis of the two-wave theory, enunciated in the late nineteenth century to explain certain features in the New Indo-Aryan languages but no longer taken seriously

Iron is expected to have introduced revolutionary changes in the economy of the people—in agriculture, transport and trade and in the promotion of civic life. Particularly, iron implements have been thought to be indispensable for the cutting down of the primeval forests of the Ganga plains and for the expansion of agriculture, and iron ploughshare for the tilling of the heavy soil of the plains. The hardness and abundance of iron was a definite advantage over copper-bronze, but it must not be forgotten that without iron granite blocks of enormous sizes had been cut for the Egyptian pyramids (whether this would have been cheaper and quicker with iron implements is beside the point), that trade had been established with distant lands and that cities had been founded and heavily fortified.

While the history of plough-cultivation in India is not clear, the recent discovery of furrow-marks below the Harappan levels at Kalibangan shows that it was practised by the pre-Harappans, and it is a sure inference that it was likewise practised by the Harappans who came into contact with the pre-Harappans. All speculation on the matter is now set at rest.[17] About the chalcolithic cultures there is no evidence either way; the general condition of their economy would tend to provide a negative answer. But the plough was known to the Vedic Aryans, and this is in consonance with the diffusion of the plough in the ancient world: 'by 1000 B.C. the plough . . . had attained the limits of its ancient diffusion.'[18] There need also be no doubt

by linguists, too many theories have been started of late to explain archaeological facts, on the assumption that the two waves were different from each other in their cultural contents.

17 *Indian Archaeology 1968-69—a Review,* 1971, p. 29. Kosambi thinks that a light toothed harrow, and not the plough, was employed by the Harappans for turning the soil, D. D. Kosambi, *Introduction to the Study of Indian History,* Bombay, 1956. Sharma is of the view that the Harappans dug the soil themselves without the plough, Ram Sharan Sharma, *Light on Early Indian Society and Economy,* Bombay, 1966. But in the wider perspective of the ancient world, Childe was never in doubt on the use of the plough by the Harappans, *op. cit.,* 1942, p. 81.

18 Childe, *op. cit.,* 1942 p. 81. As the words *hala* and *lāṅgala* have been thought to be non-Aryan, it has been held that the plough was borrowed by the Aryans from the non-Aryans. But no non-Aryan origin has been claimed for the other word for the plough, *sīra,* and the connected word *sītā,* 'plough-mark', *Ṛgveda-Saṁhitā,* IV, 57, 8, etc.; on the other hand, an Indo-European origin of these words is not unlikely, C. D. Buck,

that in later Vedic times ploughshares were made of iron, which was by then available. Not only that, there are references to ploughs to which six or twelve oxen were yoked[19] and to six or eight yokes,[20] which would require twelve or sixteen oxen. But it should not be too readily assumed that the references indicate improved methods of tillage resulting in the production of agricultural surplus. It is by no means certain whether the use of a multi-ox plough was a common practice adopted to draw a heavy iron ploughshare required for the breaking of hard soil or was meant to produce grains of special sanctity necessary for rituals; in the latter case, the attachment of many oxen and yokes would only be formal. But the first alternative may be equally true and has historical parallels elsewhere: 'The ancient Germans did invent a system of tillage appropriate to the heavy claylands of North European forests—deep cultivation by eight oxen.'[21]

It is, however, readily agreed that in order to make the Ganga basin habitable dense jungle had to be cleared, and in this task iron implements came in useful. But copper-bronze implements would have accomplished the task equally effectively, though more slowly. If jungle must be cleared to provide room for expansion (this was evidently an imperative, to meet the requirements of a population which could no longer accom-

A Dictionary of Selected Synonyms in the Principal Indo-European Languages, Chicago, second impression, 1965, *s.v. plough. Phāla,* 'ploughshare', occurring in *Ṛgveda-Saṁhitā,* IV, 57, 8, seems to be the same as Greek *phallos,* Latin *phallus;* cf. also Latin *pāla,* etc., Buck, *op. cit., s. v. spade, shovel.* The word *lāṅgala* has been regarded as Austric in origin, though it is doubtful if the ancient Austric-speaking people had reached the stage of plough-cultivation. The more primitive of the Austric-speaking people till recently practised *jhum* or slash-and-burn cultivation, E. T. Dalton, *Descriptive Ethnology of Bengal,* Calcutta, 1872, pp. 154, 158, etc., and others have probably adopted the plough from their more sophisticated neighbours.

19 *Taittirīya-Saṁhitā,* V, 2, 5.

20 *Atharvaveda-Saṁhitā,* VI, 19, 1, and VIII, 9, 16.

21 Childe, *op. cit.*, 1942, p. 242. Another interpretation of the Vedic passages may be examined; is it possible that the references to yokes and oxen are to the area of cultivated land? *Hala* as a measure of land is found in inscriptions. Cf. Hindi, 'a field of six ploughs or twelve oxen' (information from Mr M. C. Joshi), and English 'ploughland', as much land as could be ploughed by a team of eight oxen in a year.

modate itself in its homeland, perhaps owing to an increase and political and economic reasons), and if there was no iron but the required quantity of copper-bronze was available, copper-bronze implements would have been used and would have done the work. The primary need was the breaking of new grounds, and this could have been achieved in pre-iron days had the need arisen. It is a wrong emphasis to say that the Aryan occupation of the Ganga plains could not have taken place without iron, particularly when we remember that there was another way, quicker and less toilsome, of getting rīd of jungle without any metal at all, namely by burning it. This method was no doubt taken recourse to, as is evidenced by the legend of Videgha-Māthava in the *Śatapatha-Brāhmaṇa* (below, chapter III, section I). Elsewhere we see that jungle was removed by fire only from land to be cultivated; otherwise it was left untouched.[22]

The material equipment of the people who produced the Painted Grey Ware in the early Iron Age cannot be claimed to have been rich. This is clear from the excavations, though limited, of all the sites with that Ware.[23] Houses were made of mud and mud-brick. The find of fragments of baked brick, one each at Hastināpura and Ahicchatrā, does not prove otherwise.[24] A few copper objects, such as antimony-rods and nail-

22 *Taittirīya-Saṁhitā*, V, 2, 5.

23 These sites are: Tilpat (1949), *Ancient India*, 10 and 11, 1954 and 1955, p. 141; Hastināpura (1950 to 1952), *ibid.*, pp. 4 to 151; Chak 80 (1951), *East and West*, IV, 1, 1953, pp. 31 to 34; Mathurā (1953-54), *Indian Archaeology 1953-54—a Review*, 1954, p. 15; Rupar (1953-54), *ibid.*, p. 7; Purana-Qila, New Delhi (1954-55), *ibid.*, *1954-55*, 1955, p. 17, and now under extensive excavation; Alamgirpur (1958-59), *ibid.*, *1958-59*, 1959, pp. 50 to 54; Śrāvastī (1959), K. K. Sinha, *Excavations at Śrāvasti*, Varanasi, 1967; Atranjikhera (1962-63 and subsequent years), *Indian Archaeology 1962-63—a Review*, 1965, p. 34, *1963-64*, 1967, p. 47; Noh (1963-64 and subsequent years), *ibid.*, *1963-64*, p. 29, *1964-65*, 1969, pp. 34 and 35; Autha (1964-65), *ibid.*, *1964-65*, pp. 33 and 34; Allahpur (1969-70). Some of these excavations were only minor in extent.

24 The reported find of a brick-kiln at Ambkheri, District Saharanpur, with the ochre-coloured ware, *Indian Archaeology 1963-64—a Review*, p. 56, is intriguing. So also is the small débris of fragmentary baked brick, a complete specimen being wedge-shaped, reported from Lal-Qila, District Bulandshahr, another site with that ware, R. C. Gaur, 'Lal Qila and the O. C. P. problem,' read at the International Symposium on Radio-carbon and Indian Archaeology, Tata Institute of Fundamental Research, Bombay, 7 to 11 March 1972. Perhaps baked brick was restrictedly used

parers, and iron spear- and arrow-heads are the only indications of the use of metal. Arrow-heads and styluses of bone have been reported, but the latter is a misnomer, as writing was almost definitely unknown. Nor were coins in use.[25] Two cylindrical objects one each of jasper and chert, come from Hastināpura, and a similar object, of paste, from Alamgir-pur. The first two have been thought to be weights, which implies some sort of commerce; but what merchandise required such weights is not clear. Terracotta objects include animal-figurines, but they are generally crude; there are no human figurines. There is, however, a rich repertoire of pottery, includ-ing, of course, the Painted Grey Ware itself, the painted designs on which have not much artistic pretensions. Rice is attested at Hastiṇāpura and Noh, and we can only assume that it was cultivated and not wild, the published reports not being clear on this point.[26] Noteworthy, however, is the use of glass and minerals in the manufacture of beads—the former a technolo-gical innovation and the latter an import in the plains, in addition to copper and iron found in the excavations and other metals mentioned in Vedic literature. Otherwise, the economy was self-sufficient as life was simple.

No doubt, in a slow-moving society the impact of iron was slow. The metal did not produce any spirt in the material prosperity of the society. Yet, this was the period when political *janapadas* were being formed, and each *janapada* had its capital. Of the sites with the Painted Grey Ware and early Iron Age levels that have been excavated, a few were putative early capitals, but the excavated remains are not those even of a township.

for specific purposes, such as drains and wells, wedge-shaped brick being suitable for the latter. But the position remains that houses were built of mud and mud-brick during the periods of the ochre-coloured ware and the Painted Grey Ware.

25 Like the meaning of *ayas,* that of *niṣka* in Vedic literature will never be satisfactorily settled. That it was a measure of gold is not in doubt, but it is more than doubtful if it was coined money. The whole archaeo-logical evidence is against the existence of coins in such early times.

26 K. A. Chowdhury and S. S. Ghosh in *Ancient India,* 10 and 11, 1954 and 1955, pp. 120 to 137; S. S. Ghosh in *Indian Forester,* 87, 5, 1961, pp. 295 to 301. Wild rice, called *nīvāra,* Pāṇini's *Aṣṭādhyāyī,* III, 3, 48, was no doubt used as food-grain. According to a Jātaka it grew in the Himalayan forest-region, Ratilal M. Mehta, *Pre-Buddhist India,* Bombay, 1939, p. 190.

Evidently the rulers of the early *janapadas* had their headquarters at places that were not very different from rural settlements, at best relatively large.[27]

The reported evidence of Kauśāmbī and Ujjain has not been taken into consideration above. At both these sites enormous fortifications are believed to have sprung up to mark out urban settlements, at the former site in 1000 and at the latter in 750 B.C. Keeping in view the trend of development as a whole and also examining the internal evidence of the sites (below, chapter V, section 3, and chapter VI, section 5), one cannot but be left with the feeling that both the fortifications, and therefore the origin of the cities, have been too highly dated.

4

Pre-urban north India has been dealt with in the preceding paragraphs as a background to the urban development that took place there in the next era—the early historical period, and it has been shown that the introduction of iron did not immediately involve a march towards urbanism. The story in the south is not dissimilar, though the very nature of the Iron Age there, represented by the vigorous megalithic culture, is different. The advent of iron in the south was definitely due to the builders of the megaliths. It is now generally agreed that the upper post-Aśokan date given to this event, as a result of the 1947-excavation of Brahmagiri in Karnatak,[28] is far too conservative. How much earlier the megalithic culture began it is difficult to say. The reported occurrence of iron in the phase of neolithic-megalithic overlap at Hallur in Karnatak, the Carbon-14 date of which is *circa* 1000 B.C.,[29] is at present isolated

27 It is difficult to agree with Wheeler that civic life in recognizable form began at Hastināpura in the Painted Grey Ware levels, that the culture represented by that Ware was urban and that urban life began in the *doāb* in about 1000 B.C., Mortimer Wheeler, *Civilization of the Indus Valley and Beyond,* London, 1966, p. 98.

28 R. E. M. Wheeler, 'Brahmagiri and Chandravalli 1947; megalithic and other cultures in the Chitaldrug District, Mysore State,' *Ancient India,* 4, 1947-48, pp. 200 to 202.

29 M. S. Nagaraja Rao, *Protohistoric Cultures of the Tungabhadra Valley,* Dharwar, 1971.

but raises the probability of an independent and earlier introduction of iron in the south.

Iron was much more profusely used in the south than in the north, as is evidenced by the richness of the deposits of iron objects in the megalithic graves. But the habitation-sites of the megalithic culture reveal a lack of prosperity, not basically different from what is seen in the early Iron Age sites in the north. There is nothing to show what has been claimed to be the 'urban bias of the megalith-builders.'[30] On the contrary, we find an essentially agricultural community, with a strong element specializing in the extraction and smelting of iron and stone-cutting, the latter craft no doubt facilitated by iron tools but exclusively utilized in the building of sepulchral monuments.

At the time of Aśoka in the third century B.C. there were important peoples in the south not included in his empire; whether they had shed their tribal character and had established full-fledged kingdoms is not certain. But it is noteworthy that while Aśoka recounts his contemporary Greek rulers in the west by their names, he only mentions the peoples who were his southern neighbours.[31] It is not unlikely therefore that regular kingdoms had not come into being in that region even in the third century B.C. While Aśoka had the headquarters of his lower-Deccan viceroyalty at Suvarṇagiri, excavations at the Iron Age megalithic habitation-levels of Brahmagiri (ancient Isila, under the viceroyalty of Suvarṇagiri) and of Maski (identified by some with Suvarṇagiri itself) do not show remains of prosperous towns.[32] At both places the material equipment was poor save for iron tools and weapons. Houses were made of flimsy material, indicated in the excavations only by post-holes left on the ground. Perhaps the megalith-builders spent all their masonic skill on building monuments for the dead but none on providing firm houses for the living. This illustrates the point that the mere possession of technology does not lead to its

30 Banerjee, *op. cit.*, p. 214. Far less is there anything to show that the earlier south-Indian chalcolithic culture had a semi-urban life, G. C. Mohapatra in Mishra and Mate (ed.), *op. cit.*, p. 103.

31 Aśoka's Rock-edicts II and XIII.

32 Wheeler, *op. cit.*, 1947-48; B. K. Thapar, 'Maski 1954: a chalcolithic site of the southern Deccan,' *Ancient India*, 13, 1957, pp. 4 to 142.

application to all spheres unless it is encouraged by social institutions which can take advantage of that technology.

In spite of a more conspicuous beginning of the Iron Age there, the south had a later start in urban development than the north.

5

The story in the rest of India is simple. To central India and the upper Deccan iron went from the north with the other equipments of the early historical culture. So also is the case with eastern India, where the local people do not seem to have exploited its rich iron-ore deposits, owing to lack of demand or technical knowledge; the exploitation must have started with the increase of demand from the more advanced regions that lay to the west, from which the technology itself may have been borrowed.

6

The sixth century B.C. was indeed a turning-point for north India. No justification is needed for calling it the early historical period. History is no longer nebulous: it was dominated by royal personages and religious teachers whose historicity is not in doubt.

Politically, *janapadas,* with fairly well-defined boundaries, had been formed, and soon a few of them grew into *mahā-janapadas.* Out of these latter again, four—Kosala, Vatsa, Magadha and Avanti—were to become super-*mahā-janapadas;* there might have existed one or two more such entities, but they are not known to the class of literature—Buddhist and Jaina—from which most of our information on the period is derived and which had the central Ganga basin as its focus. In spite of this limitation, it is certain that that region had attained political primacy, and two centuries later, under the Nandas and Mauryas, Magadha, the easternmost of these four, was to become the nucleus of the first empire of historical India. These are well-known facts of history and need no elaboration here.

The early historical period in the north witnessed material changes of far-reaching consequences. For the first time we

come across a definite system of coinage, the necessity for which must have been felt to meet the requirements of, and which, in turn, promoted, organized commerce. That again presupposed, as well as produced, arterial roads; however, there might not have been any significant changes in the means of transport, except the substitution of iron components for copper-bronze ones in the cart. Punch-marked coins are prolific in silver, which, being a scarce metal in India, must have been imported from outside. Baked brick, virtually unknown after the fall of the Harappan cities, reappears and would lead to the construction of monumental buildings, including fortifications. (The evidence for the emergence of each at the more important cities will be dealt with later on in chapter VI.) There is now a system (or two systems) of writing, again for the first time after the Harappans. While the earliest extant writings date from Mauryan times, it would be reasonable to allow one or two centuries for standardization. At the same time, it would be unreasonable to allow a longer period of development.[33]

The distinctive ceramics of the period was the Northern Black Polished Ware, which appeared in *circa* 500 B.C., the earlier part of its floruit coinciding with the later part of that of the Painted Grey Ware.[34] While utilizing a new technique (not

33 The stiff and halting writing in the edicts of Aśoka, the clumsy way of forming conjunct consonants, the ambiguous manner in which such letters are sometimes written (cf. *dbādasa* and *-pta* in the Girnar version, which can also be read as *bdādasa* and *tpa*) and the tendency to avoid them—all show a not much earlier introduction of the script.

34 The absence of an overlap between the two Wares at Hastināpura is evidently due to the abandonment of the site some time within the currency of the Painted Grey Ware and the later introduction of the Northern Black Polished Ware there than in the easterly sites. Carbon-14 determinations now available would indicate much later dates for the Painted Grey Ware and the Northern Black Polished Ware levels (respectively Periods II and III) of Hastināpura than were assigned to them by the excavator, B. B. Lal, 'Excavations at Hastināpura and other explorations in the upper Ganga and Sutlej basins 1950-52,' *Ancient India,* 10 and 11, 1954 and 1955, pp. 4 to 151. The later levels of the former Ware, according to these determinations, date from 570 to 335 ± 125 to 100 B.C., and the levels of the latter from 340 to 50 ± 115 B.C., Agrawal, *op. cit.*, p. 103. The dates are not internally inconsistent. The beginning of Period IV, which started after the desertion of the site, would therefore appear to be later than what has been proposed, namely second century B.C.

yet identified) of imparting a lustrous surface, the Ware borrowed shapes of its elder contemporary, which predeceased it. The Northern Black Polished Ware meant much more than the emergence of yet another regional ceramics. From its homeland in the central Ganga plains, where it is found in profusion, it was exported to cities like Taxila and Ujjain as a result of commerce.[35] But its spread to distant places like Amaravati on the Krishna, the southernmost point of its occurrence, could easily have followed the steps of Mauryan imperialism.[36] Its coming into vogue has been regarded as 'a prophetic aid to the archaeologists of the future;'[37] however, they have sometimes been somewhat incautious in the use of its evidence by ascribing sites wherever the Ware occurs to the sixth century B.C., forgetting that it was current down to *circa* 100 B.C.

7

It was in the midst of this *milieu* that cities—a major innovation of the early historical period—sprang up in the Indus-Ganga valley. The process of the transformation of the incipient headquarters of the *janapadas* into cities is not clear; but the factors that could have been responsible for the transformation can be guesed against the background of history and archaeology and will be examined in the next chapter in the light of the origin of cities in different climes and times.

At the time of Buddha there were small towns and large cities, and the available details are too realistic to be ignored. Six of them—Campā, Rājagṛha, Śrāvastī, Sāketa, Kauśāmbī and

35 Agrawal thinks that its diffusion was due to iron trade and technology from Bihar, *op. cit.*, p. 244. The early Jaina text *Uvāsaga-dasāo*, ed. P. L. Vaidya, Poona, 1930, pp. 47 to 60, gives the story of a wealthy potter of Polāsapura (unidentified), who owned five hundred potters' workshops and a fleet of boats to distribute his wares up and down the Ganga. It is interesting to speculate on what wares were manufactured on a mass scale by wealthy potters. As the vast mass of common pottery must have been locally produced and would not bear the cost of transportation, it is likely that *de luxe* ware like the Northern Black Polished Ware was the chief mercantile ware that was carried on boats and traded.

36 Ghosh, *op. cit.*, Ahmadabad, 1953; B. K. Thapar, 'Prakash 1955: a chalcolithic site in the Tapti valley', *Ancient India*, 20 and 21, 1964 and 1965, pp. 13 and 24.

37 Wheeler, *op. cit.*, 1966, p. 135.

Vārāṇasī, all except Sāketa significantly the headquarters of contemporary *mahā-janapadas*—are mentioned as great cities;[38] but there might have been a few more qualifying themselves for that status but not mentioned in the list as they lay beyond Buddha's ken. According to one count, sixty towns and cities are mentioned in Pali literature,[39] but some of them came into being later on.

That there were larger cities and smaller towns, sometimes functionally different from each other (chapter IV, section 2), is certain and but natural. The present-day distinction between the city and town, based on an empirically-fixed population (chapter III, section 7), is impossible to apply to ancient times. In the following pages no hard-and-fast distinction has been made in the use of the two terms.

8

The sources of information for this study are obvious and need not be recounted in detail. The literary sources, as is well-known, are not precisely dated. There is no reason to think that the whole of the Vedic literature was composed before the time of Buddha, or that Buddha was acquainted with the Upaniṣadic literature, though part of the Upaniṣadic thoughts might have been in the air when he preached. The same uncertainty exists in the case of the Dharma literature, the earliest texts of which may not be earlier than 300 B.C.[40] About the Epics the less said the better: it is only a hypothesis that the final composition of the *Rāmāyaṇa* and the *Mahābhārata* was complete by Gupta times.

Equally uncertain is the chronology of the Pali Buddhist, and all the more so of Jaina, literature. To claim a Buddha-time origin of all that is believed to have been said by Buddha and even a pre-Buddhist origin of the Jātakas is unreasonable; while the Jātakas may embody old fables, the texts themselves belong to different post-Buddha strata which would have to be isolated, if it were possible to do so.

38 *Mahā-parinivvāna-sutta* in *Dīgha-nikāya*, ed. T. W. Rhys Davids and J. Estlin Carpenter, Pali Text Society, London, 1890-1911, II, p. 146.

39 Sharma, *op. cit.*, p. 63.

40 E. Washburn Hopkins in *Cambridge History of India*, I, second Indian reprint, Calcutta, 1962, p. 223.

In spite of the near-consensus of Indian scholars, it would still not be unreasonable to believe in a post-Mauryan composition of most of Kauṭilya's *Artha-śāstra*. A recent attempt has isolated three strata in the text.[41]

All this makes a chronological arrangement of the data out of the question. That is why the evidence can only be lumped up together, without any attempt at tracing *inter se* development. It would have been going much out of the way and would have been delving into a different discipline, besides adding to the considerable bulk of literature already available, if any efforts were to be made here to marshall the data into a definite chronological order. Even if the attempt had been successful, the difficulty of evolving any system out of the varying and sometimes even contradictory outlook of the different types of literature would have stood in the way. Regional influences on the texts cannot also be ignored, and it would be idle to expect that the conditions reflected in the different texts would hold true for the whole of India at any given time.

The archaeological evidence is no doubt much more reliable than anything in literature. But here too there are shortcomings. Most of the excavations have been vertical in nature and have not laid bare as a whole the cultures of the periods of the Painted Grey Ware and Northern Black Polished Ware, with which we are particularly concerned here. Further, the absence of detailed excavation-reports in some cases stands in the way of a full utilization of whatever material is available.

In chapter II a brief attempt has been made to see Indian urbanism in the world perspective, and it has been necessary to consult some works on the sociology of cities. The study in this direction is admittedly incomplete. 'Each season,' it has been said, 'brings forth a new crop of books on the city'[42] (in America), but only a very small fraction of the published literature has been available to the author. But that fraction has shown that the subject-matter of most of the literature relates to industrial cities. Nevertheless, its study has not been entirely without result.

41 R. Trautman, *Kauṭilya and the Arthaśāstra: a Statistical Investigation of the Authorship and Evolution of the Text*, Leiden, 1971.

42 Don Martindale in Max Weber, *The City*, tr. and ed. Don Martindale and Gertrude Neuwirth, New York-London, 1966, p. 9.

CHAPTER II

Theories on Pre-Industrial Urbanism

1. Definition
2. Surplus
3. Origins
4. Criteria
5. Ecology; land-uses
6. Independent development

1

THE city has been variously defined, but its broad distinguishing features are that: (1) its population is denser than in rural areas and is settled in a restricted area; (2) only a limited part of its area, if any at all, is utilized for agricultural purposes; (3) its population is predominantly non-agricultural in occupation and is dependent on rural areas for the supply of food and raw materials; and (4) this would involve the presence of merchants to supply the citizens with the necessities of life. A greater diversity of occupation is not necessarily a feature of the city, for there may be cities with specialized functions, where this cannot be a feature. Thus, a city may be only a political and administrative centre, another a centre of trade and commerce and a third one a religious centre. But all would share the above features, which would distinguish them from the rural areas, where (1) land is less restricted, (2) food need not be brought from outside, and (3) comparative self-sufficiency makes the need of a permanent population of merchants more limited. The variables of industrial cities are more complex but do not concern us here.

It is also evident that a mere increase in the population of a village would not turn a village into a city, unless it is accompanied by other changes.

Says Toynbee:

> 'A city is never just a habitat of a crowd that has to buy food by selling something else in exchange for it. Close

> settlement does not constitute a city unless the inhabitants of the built-up area are citizens in the non-material sense of having, and being conscious of having, a corporate social life. This need not necessarily take the institutional form of a mayor and corporation. A formal civic constitution may be lacking. What is essential is that the inhabitants of the city should be a genuine community in fact. The existence of this sense of community, where it exists, is usually proclaimed by the presence of public buildings; a defensive city-wall with towers and gates; a meeting-place . . . for the transaction of common commercial and political business; at least one temple of the city's tutelary god; and perhaps a hall to provide office-rooms for the city's administrators, if the city's government has reached that degree of organization. In order to become a city, it would also have to evolve at least the rudiments of a soul. This is the essence of cityhood.'[1]

This point—citizens having a corporate social life—will be dealt with later on (section 4).

2

It has been said by many writers that a society must build up a surplus of food-stuff before it can have a city. Improved agricultural technology—the plough, the wheeled cart and irrigation—gave the Bronze Age society the surplus to support artisans, particularly full-time specialists in metalcraft, and other non-food-producing populations of the city—the temple-priests and -attendants and administrators. Such an accumulation, says Childe, 'was a precondition for the growth of the village into a city.'[2] Within the city the accumulation of surplus was restricted to a small class, and this split the society into classes.[3]

The above is a simplified version of a none-too-simple socio-economic process and seems to imply that the city arose to

1 Arnold Toynbee (ed.), *Cities of Destiny*, London, 1967, p. 13.
2 V. Gordon Childe, *Man Makes Himself*, fourth edition, ed. Glyn Daniel, London, 1965, p. 109.
3 V. Gordon Childe, *What Happened in History*, Penguin, Harmondsworth, 1942, p. 99.

consume an existing surplus and specialists thrived because a surplus was available. Thus, it has been observed: 'The new agriculture (by the plough in the Iron Age) led to the production of a surplus on a scale which could not be attained with stone or copper implements. This prepared the ground for the rise of urban settlements in north-eastern India around 600 B.C.'[4] But the matter requires a deeper analysis; the fundamental question is: between the accumulation of surplus and the need for it, which preceded the other? We may not have any hesitation in answering that the need for surplus produced the surplus, that an accumulated surplus was the product of the need for it, that the surplus is not present the moment the capacity to produce it is there. This is obvious, because the farmer would not produce any more than what is required; even if he does so out of compulsion or for gain, provided the capacity to produce it is there, the surplus would not automatically find its way to where it is needed, namely the city. Further, in a country like India it is not possible to produce or foresee a long-term dependable surplus, for periodical droughts and floods would cause scarcity which would not only eat away the surplus but might cause famine-conditions and would make the accumulation of surplus impossible. The producer in the field will thereby suffer more than the consumer in the city, who would have the authority to squeeze out whatever is left with the producer and the wherewithal to obtain food-stuff from distant lands where conditions have not been adverse. More than a surplus or even the capacity to produce a surplus, therefore, what is required is a social-political institution to force or induce the farmer to produce a surplus, to divert the surplus to where it is required and to procure food, again by coercion or for consideration, from distant hinterland should the crop in the near hinterland fail. For procurement by coercion, which would include taxes and tributes, an administrative authority is required and by commercial means a mercantile system is called for. The prerequisite, therefore, is not a hypothetical surplus but an administrative and mercantile organization—the ruler and the merchant, both of the city and each the ally of

4 Ram Sharan Sharma, 'Material background of the origin of Buddhism,' Mohit Sen and M. B. Rao (ed.), *Das Kapital Centenary Volume—a Symposium,* Delhi-Ahmadabad-Bombay, 1968, p. 61.

the other in history. Surplus was thus not a technical but a social product; 'the institutions created the surplus, which is not "there" the moment it is technically possible but only after it has been institutionalized through taxes, trade and other means.'[5] The non-agricultural aspect is dominant in the procurement, and therefore in the production, of surplus.[6]

3

As between the ruler and the merchant, the credit for the establishment of cities has been given to the former, leaving the latter to follow. According to Sjoberg,

'Urban growth in societies is invariably highly correlated with the consolidation and expansion of a political apparatus, be the result a kingdom or an empire . . . As a society broadens its political control it enlarges its economic base as well . . . We do not deny that a commercial organization is necessary if a political system is to be maintained, but it is not crucial for urbanization as most historians have maintained; contrariwise, large-scale economic enterprise is highly dependent on an effective power structure . . . Nowhere do cities, even commercial ones, flourish without direct or indirect support of a well-established state system. We can find no instance of a significant city-building through commerce alone.'[7]

Similar is the view of Mumford:

'The most important agent in effecting the change from a decentralized village economy to a highly organized urban economy was the king, or rather, the institution of kingship. The industrialization and commercialization we now associate with urban growth was for centuries a subordinate phenomenon probably even emerging later in time . . . In urban explosion the king . . . is the polar magnet which

5 Philip M. Hauser and Leo F. Schnore (ed.), *The Study of Urbanization,* New York-London-Sydney, 1965, p. 270.

6 The question has been discussed in: Marvin Harris, 'The economy has no surplus?,' *American Anthropologist,* 61, 1959, p. 185 to 199; Hauser and Schnore (ed.), *op. cit.,* pp. 269 and 270; Robert McC. Adams, *The Evolution of Urban Society,* London, 1966, pp. 45 to 47.

7 Gideon Sjoberg, *The Preindustrial City of Past and Present,* New York, 1960, pp. 69 and 75.

draws to the heart of the city and brings under control all the new forces of civilization.'[8]

Both writers have forcefully presented only one side of the picture and have ignored the technological and economic factors which promoted kingship or 'priest-kingship' of Sumer, where we first see the institution and where cities first appeared. It was the economic system 'that made the god (through his representative) a great capitalist and landlord, his temple into a city bank.'[9] In essence, kingship itself, a political system, was the result of an economic system that had developed in the early days of the Bronze Age; though its role in the establishment of the Sumerian cities is more obvious, the technological and economic background that made it possible should not be lost sight of. The same would hold good of the age immediately preceding the early historical times of India, when chiefs founded *janapadas* that were eventually to have their city-capitals; but the establishment of the *janapadas* itself was the result of the new society of the later Vedic age, in which economic and political factors both played their part, with the former perhaps remaining in the background to boost up the latter. When cities began in north India, we find merchants forming an essential part of the civic population, in close touch with the royal courts, on the protection and patronage of which they no doubt depended but the prosperity of which, in turn, depended on them to no mean degree. No city in a non-totalitarian state can live without a supporting merchant-class.

Merchants themselves could establish cities for commerce, manage their affairs and even issue coins on their behalf (cf. *nigama*, chapter IV, section 2), though for law and order there as elsewhere the administrative power might be responsible, to make mercantile activity possible. The two go together, each fulfilling its function in the city; and the merchant-class was the direct outcome of the foregoing economic system.

8 Lewis Mumford, *The City in History—its Origins, its Transformation and its Prospects*, London, 1961, p. 35. Cf. 'Preindustrial cities have always functioned primarily as governmental and religious centres, and only secondarily as commercial establishments,' Hauser and Schnore (ed.), *op. cit.*, p. 216.

9 Childe, *op. cit.*, 1965, p. 154.

4

Taking into consideration the achievements of the early civilizations (involving city-life) in the Old World and meso-America, Childe lays down the following ten abstract criteria ('abstract' because their concrete manifestations were different in each civilization) to distinguish the earliest city from any older or contemporary village:[10]

(1) In point of size the first cities must have been more extensive and more densely populated than any other previous settlements, although considerably smaller than many villages of today.

(2) While there might be peasants cultivating lands outside the city, all cities must have accommodated in addition non-food-producing classes—full-time specialist-craftsmen, transport-workers, merchants, officials and priests—supported by the surplus produced by peasants.

(3) Each primary producer paid over his tiny surplus to a deity or divine king who thus concentrated the surplus.

(4) Truly monumental buildings not only distinguish each known city from the village but also symbolize the concentration of social surplus.

(5) All those not engaged in food-production were supported in the first instance by the surplus concentrated in temples or royal granaries and were dependent on the temple or court. But naturally, priests, civil and military leaders and officials absorbed a major share of the concentrated surplus and thus formed the 'ruling class', which did confer substantial benefits upon their subjects in the way of planning and organization.

(6) The ruling class was compelled to invent systems of recording and exact, but practically useful, sciences. The mere administration of the vast revenues of a Sumerian temple or an Egyptian pharaoh by the perpetual corporation of priests and officials obliged its members to devise conventional methods of recording that should be intelligible to all their colleagues and successors, that is, to invent writing and numeral notation. Writing is thus a significant, as well as a

10 V. Gordon Childe, 'The Urban Revolution,' *The Town Planning Journal*, Liverpoole, XXI, 1. April, 1950, pp. 3 to 17.

common, trait in Egypt, Mesopotamia, the Indus valley and central America.

(7) The invention of writing enabled the leisured clerks to proceed to the elaboration of exact and predictive sciences —arithmetic, geometry and astronomy.

(8) Other specialists gave a new direction to artistic expressions. Artist-craftsmen—full-time sculptors, painters or seal-engravers—began to carve, model or draw according to conceptualized and sophisticated styles.

(9) A further part of the concentrated surplus was used to pay for the importation of raw materials needed for industry or cult and not available locally. Regular 'foreign trade' over quite long distances was a feature of all early civilizations.

(10) So in the city specialist-craftsmen were provided with raw materials needed for the employment of their skill and also guaranteed security in a state organization based on residence rather than kinship. Itinerancy was no longer obligatory. The city was a community to which a craftsman could belong politically as well as economically.

Childe's list of criteria has been criticized as a mixed bag of characteristics; they differ radically from each other in their importance as causes or even as indices of the Urban Revolution. Some of them, for example, the appearance of representational art, are not immediately apparent with the emergence of cities. Still others, for example, exact and predictive sciences, are largely a matter of interpretation from fragmentary and ambiguous evidence. The criteria resolve themselves into a group of primary variables and a larger group of secondary variables, the primary motivating forces for the urban transformation being the rise of new technology and subsistence-patterns.[11]

Childe is of the view that while the civilization of central America was an independent growth, all the later civilizations of the Old World may be in a sense descendants of Egypt, Mesopotamia or the Indus. But, as we shall see in chapter VI, it is impossible not to regard the historical civilization of India as an independent and much later development with no link with the Indus. In the circumstances there is every justification

11 Adams, *op. cit.*, pp. 11 and 12.

for our examining how far Childe's criteria can be thought to hold good for the cities of the historical civilization.

The first criterion, namely the relative size and density of population of the city, is obvious and is in the very definition of the city. All the rest are based on the surplus theory, which has been examined in section 2 above. The conclusion that has emerged is that a surplus does not exist in the air without a demand for it, that while the society must have the capacity to produce a surplus before it can have its cities, there must be an organization to see that the surplus is produced and a machinery to ensure that the surplus is brought to where it is needed. To that extent the precondition for the establishment of cities in the Ganga valley had been fulfilled just before the early historical period. The capacity to produce surplus foodstaff was there (how much earlier it had been there it is not possible to say); and the necessary machinery for the utilization of the surplus had also come into being in the form of the rulers of the *janapadas* with fairly large courts and a supporting and supported merchant-class, the result of specialization of occupations leading to the breakdown of the self-sufficient economy. With this, the rulers must have cities as the political centre, with a host of political, administrative, military and religious officers and a gathering of merchants, manual labourers and others—all generally unconnected with land. Childe's second and third criteria are thus fulfilled. The rest of the criteria are expected to follow, but did they follow and if so, to what extent?

Monumental buildings—the fourth criterion—took the form of temples and other religious, including sepulchral, edifices in other civilizations. But in north India of the earlier part of the period we are concerned with, religious beliefs and practices did not require any edifices, except with the Buddhists who had their *stūpas* right from the beginning within cities or in their vicinity. The earlier *stūpas*, it is well-known, were only unpretentious earthen barrows which had nothing monumental about them.[12] Besides, each city had its own sacred spot

12 The earliest *stūpa* of Vaiśālī, which could have been one of the eight original *stūpas* of Buddha, was only a low earthen mound, B. P. Sinha and Sita Ram Roy, *Vaiśālī Excavations 1958-62*, Patna, 1969. Another

(*caitya*), but there does not seem to have been any significant edifice on them. Large *stūpas* had to wait till the days of Aśoka to come up, and temples, of any denomination, till even later times.

No remains of palaces are known at any early historical site.[13] Yet, it is conceivable that even from early times the residences of royalty and nobility were distinguished by their dimensions from those of the lesser people. There is a probability that they were constructed of wood and other perishable and their remains have not come down to us.

The evidence of burnt brick and of fortifications will be considered in chapter V, sections 3 and 4.

The fifth criterion, formation of a ruling class, is attested in the literature of the period. What politically distinguishes the later Vedic age from the earlier is the growth of kingship and of the power of the king, the chief person in the *janapada* who gave it his own tribal name (chapter II, section 1) and of a nobility including war-chiefs. To them have to be added the Brāhmanas attached to courts as ministers, teachers, priests and astrologers.

Whether writing—Childe's sixth criterion—must necessarily be a criterion of civilization and city-life has been disputed. Childe is emphatic in his view that it must; 'a city must possess not only a certain size, but accommodate "writing", or literacy, as the criterion of civilization.'[14] Sjoberg agrees that the use of a writing-system is a single firm criterion for distinguishing the city from other types of early settlements. According to him, 'pre-industrial civilized society' and 'literate pre-industrial society' are synonymous.[15] To Wheeler, however,

stūpa, the one at Piprawa, District Basti, enshrines a relic-casket which might be a near-contemporary of Buddha, but the elaborate brick *stūpa* itself was certainly much later in date. Its imperfect excavation in the last years of the nineteenth century does not tell us anything of its original shape and size.

13 The controversial palace-complex of masonry at Kauśāmbī, believed to be that of Udayana, a contemporary of Buddha, is left out of consideration here.

14 V. Gordon Childe, *Progress and Archaeology,* London, 1944, p. 8.

15 Sjoberg, *op. cit.,* pp. 10, 32 and 33.

writing is only a secondary consequence of agriculture and is not a criterion of urbanism and civilization.[16]

Whatever view may be taken, our cities almost certainly fulfil the criterion. When exactly Brāhmī and Kharoṣṭhī came into use is not definitely known, but they had established themselves by the time of Aśoka, and some time-lapse must be allowed for their standardization. The attempted derivation of Brāhmī from the Indus script is still speculative and must, for the present, be regarded sceptically in view of the absence of any connecting link, in time and space, between the two.

Why or how Brāhmī and Kharoṣṭhī were invented or adapted it is impossible to guess. The Sumerian origin of script—to keep accounts and records of the vast revenues of temples—could not apply to India; nor could there be in India the need for committing to writing the vast mass of sacerdotal literature that had grown up by the early historical period, for it remained unwritten for a very long time. A much more secular necessity —the maintenance of royal records—may be a reason for the introduction of the scripts, 'but there is nothing to prove it.

On the other hand, the seventh criterion, development of arithmetic, geometry and astronomy, is seen in India during this period. It developed out of sacerdotal reasons—determination of dimensions of sacrificial altars and fixation of auspicious moments for sacrifices and other acts on the basis of the movements of luminary bodies—rudiments of sciences embodied in the Śulba-sūtras and Jyotiṣa, both 'limbs of the Vedas'. How much they had to do with urbanism is not known, though much of the later Vedic literature, dealing with elaborate rituals, was due to royal patronage.

No spirt in artistic activity—the eighth criterion—is noticeable immediately with the start of the early historical period, though there might have been a proliferation in argillaceous art. There is no definitely pre-Mauryan stone sculpture, whether in native tradition, such as the later Yakṣa-figures, or

16 Mortimer Wheeler, foreword to V. Gordon Childe, *Social Evolution,* London, 1963, p. 6; also in *Antiquity,* XXX, 1956, pp. 132 to 136, and V. Gordon Childe's reply in *ibid.,* XXXI, 1957, pp. 36 to 38, both about whether Jericho can claim the status of civilization and urbanization.

in imitation of foreign style, such as the pillar-capitals of Aśoka.[17]

There is no evidence in the period of any extensive trade with outside countries—the ninth criterion of Childe. Even Taxila, which was under Achaemenid occupation from the time of Darius I, does not show much evidence of imports from Persia; nor is there any certain evidence of any Indian object finding its way outside India. Silver, for coinage and other purposes, must have been, however, imported. Internal trade was in a flourishing condition; even at the time of Buddha there was a network of roads connecting different parts of the country. Overseas trade was a later development reaching its climax at the peak of the Roman empire.

Whether the city was a community and its inhabitants had developed a communal feeling—the tenth criterion of Childe and one of those of Toynbee (above, section 1)—is uncertain but *a priori* unlikely. That there was a permanent civic population there need be no doubt. But whether all classes in the city were integrated into a common community and had a consciousness of their own our sources generally fail to make clear. It is possible that considerations of caste,[18] the heterogeneity of the population and a diversity of interest precluded the formation of a well-knit citizenry. However, there might have been exceptions to this. In Pali literature the city of Vaiśālī is credited with a community-hall where matters of interest to the city were discussed in a spirit of concord and amity. How far this is an idealistic picture we have no means of knowing.

5

Much has been said on the ecological theory of the pattern of land-uses in the city, which, though based on the study of the pattern of Chicago, has been thought to be applicable to

17 It is not at all certain whether the Jaina object of worship brought to Magadha from Kaliṅga by a Nanda king in the fourth century B.C. and taken back to Kaliṅga by Khāravela three centuries later was a statue or a sacred symbol.

18 Cf. Don Martindale in Max Weber, *The City*, tr. and ed. Don Martindale and Gertrude Neuwirth, New York-London, 1966, p. 84.

other American cities. According to it, the city has a central business-district, Zone I, around which would be a zone, Zone II, of transition and degeneration and all that goes with it. Around this zone would be Zone III, with workmen's homes and factories, surrounded by Zone IV, with better residences of white-collared workers and professionals. The last, Zone V, would be the commuter's zone of suburbs with substantial single-family dwellings of the well-to-do.

Propounded in 1925, the theory has undergone modifications from time to time,[19] but the fundamental principle underlying it—that of concentric zones—has remained unaltered. It has been rightly criticized on the ground that 'not only did deliberate and calculated human move upset the ecologist's theory, but culture could not be separated from the ecologist's main concern. Urban space was not just a physical, culturally neutral resource whose use was exclusively determined by economic competition.'[20] It has also been said that 'an ecological, or combined ecological and economic, explanation of urban growth is insufficient by itself . . . Some other considerations which might affect urban structure include the presence of religious, racial and ethnic sub-communities in them and their areas of residence; the segregation of classes in the neighbourhood, the location of commons, parks, cemeteries, public buildings and land-marks which have cultural sentiment or tradition; the original plan of cities; and the events of history. In addition, the topographical features of the sites on which cities stand influence their shape.'[21]

When the applicability of the theory to American cities themselves is in doubt, we need not pause to consider its applicability to cities of ancient India. There is no material evidence to indicate the layout of these cities. In the absence of temples, it cannot be thought that religious edifices standing at the centre dominated the scene, as in Sumer. Whether royal palaces took their place we do not know; the palace-complex of Kauśāmbī stood in the south-western corner of the city on

19 For summary and comments see Leonard Reissman, *The Urban Process—Cities in Industrial Societies*, New York, 1964, pp. 105 to 110.

20 *Ibid.*, p. 120.

21 John Sirjamski, *The Sociology of Cities*, New York, 1964, p. 200.

the bank of the Yamuna.[22] If the early historical cities are grouped together ecologically, the ecology of the Ganga plains must have played its role in their formation, which must have been different, it can be easily imagined, from that of the earlier Indus cities or of Taxila or Ujjain, all situated in different ecological zones. But the material at out disposal is insufficient for such studies. And such considerations are beyond the scope of the ecological theory of the Chicago school.

According to Sjoberg, three patterns of land-use in pre-industrial cities differentiate them from industrial ones: (1) the pre-eminence of the central area over the periphery, especially as portrayed in the distribution of social classes; (2) certain finer spatial differences according to ethnic, occupational and family-ties; and (3) the low incidence of functional differentiation in other land-use patterns.[23] In medieval Indian cities certain streets and lanes were reserved for certain crafts, and in addition there would be some multipurpose bazars in the more prominent localities. It is not entirely unlikely that this was the pattern in ancient Indian cities as well, but beyond this it is not possible to guess anything about the placement of different types of buildings.

6

In the Old World urbanism in each of the four centres of civilization—Sumer, Egypt, the Indus valley and China—had an independent origin, and meso-America, with no plough-cultivation, no stock-breeding, no sailing-boat and no wheeled transport, but with a well-developed power-structure, was on the verge of entering the urban stage more than two millennia later than the other centres. India had her 'second urbanism' borrowing nothing from the Indus civilization, in the middle of the first millennium B.C., after which urbanism has a continuous history in the country. In spite of broad similarities in the causative factors and criteria, the city of each centre had its own ethos. 'The broader the historical perspective, the fewer the common denominations between cities and the

22 *Indian Archaeology 1960-61—a Review*, 1961, p. 33.
23 Sjoberg, *op. cit.*, pp. 95 and 96.

narrower the base for theoretical analysis.'[24] In chapters IV and V, we shall see what literature has to say about early historical cities and what archaeology has limitedly produced about them.

24 Reissman, *op. cit.*, p. 152.

CHAPTER III

Units of Settlements

1. The *janapada*
2. The *janapada* and its city
3. The *mahā-janapada*
4. Main units of settlement; the *grāma* and its variants
5. The *saṁvāha*
6. Urban-rural continuum
7. Present-day pattern of settlement
8. Continuation of the ancient pattern

1

DURING the period of our study the composite unit of settlement was the *janapada,* which, like the English word 'country', had the dual meaning of territory and rural area. Kauṭilya says that a *janapada,* whether an existing one or a new one, should be settled by immigrants from other regions or by the surplus population of the ruler's own country.[1]

It was by this process, in addition to conquests, that the chiefs of the ruling tribes organized their *janapadas* in the Indus-Ganga plains during the later Vedic times, when the word first came into vogue, and gave them their own tribal names. With a definite territory of their own, they lost their tribal character and assumed the functions of the ruler. The names of the *janapadas* thus given would continue even if they changed hands. This is emphasized by a rule of Pāṇini, which says that the etymological meaning of a word should not be held authoritative, as in that way the word itself would vanish when the meaning ceased to hold good.[2] Speaking differently, such words acquired the sense of a proper name, irrespective of their origins, which then became irrelevant. This may be Pāṇini's answer to etymological extremists, but as a practical grammarian he also makes it clear that the tribal names of the (ruling)

1 Kauṭilya's *Artha-śāstra,* II, 1.
2 Pāṇini's *Aṣṭādhyāyī,* I, 2, 55.

Kṣatriyas were also those of the respective *janapadas,* in which a particular affix (*añ*) was to be added to the name of the *janapada-cum*-Kṣatriya to mean the descendants of the respective Kṣatriya;[3] thus, Pāñcāla would mean the descendant of the tribe called Pañcāla, which word also denoted the *janapada* of that name. Commenting on this, Patañjali says that such words as Kṣaudrakya and Mālavya would mean only the descendants of the Kṣudrakas and Mālavas and would exclude their servants and workmen.[4] All this, however, does not mean that the vast majority of non-Kṣatriya residents of a *janapada* lived in a stateless condition; but their name or surname would not be the same as that of the *janapada.*

This gives a glimpse into the origin of the *janapadas* and their initial inseparability from their founders, conquerors and colonizers—a fact that can be gathered from the later Vedic literature only through implication, except in the somewhat explicit and oft-quoted legend in the *Śatapatha-Brāhmaṇa* of fire (Agni-Vaiśvānara) burning the land between the Sarasvatī in east Panjab and the Sadānīrā, probably the Gandak, in west Bihar, and the chieftain Videgha-Māthava, with his priest Gotama-Rāhūgaṇa, following the fire; thus purified, the land, which had been very marshy before, became habitable by Brāhmaṇas, and Videgha-Māthava settled down to the east of the Sadānīrā, which became the boundary of Kosala and Videha.[5] This story has been taken to be reminiscent 'of the Aryan expansion in the northern part of the central Ganga basin but does not warrant the belief that in their eastward march the Aryans followed the foot-hills of the Himalayas instead of the downward course of the Ganga[6] or that the earliest easternmost Aryan settlement was in the country of Videha,

3 Pāṇini's *Aṣṭādhyāyī,* IV, 1, 168.

4 Patañjali's *Mahā-bhāṣya,* under Pāṇini, IV, I, 18. For a detailed discussion, see V. S. Agrawala, *India as Known to Pāṇini,* Lucknow, 1953, pp. 424 to 426.

5 *Śatapatha-Brāhmaṇa,* I, 4, 1, 10 to 17.

6 D. D. Kosambi, *The Culture and Civilization of Ancient India in Historical Outline,* London, 1965, p. 119; A. L. Basham, *The Wonder that was India,* London, 1954, p. 41. There is no reason to think that the banks of the Ganga were at that time covered with thicker swampy jungle than the Himalayan foot-hills.

i.e. the Mithilā region.[7] Once the eastern spread began, it must have followed a multiple direction, and other *janapadas* must have been established not necessarily later than the colonization of Kosala-Videha.

2

The foundation of the *janapadas* in the earlier half of the first millennium B.C. was a process that produced sweeping social and political changes. The shedding of the tribal nature of the people who settled on new lands, their coming into closer touch with the existing population, which could have been ignored in the earlier days in the absence of any enduring attachment to the land, and a diversification and specialization of occupations produced the necessary setting for the beginning or, at any rate, hardening of the caste-system. Specialization also brought in its trail internal trade, which was to develop later on into a vigorous external trade. The prestige of the ruling class, which must have a seat of administration, together with the riches of the new merchant-class, led to the start of urbanism—for the first time after the disappearance of the Indus cities. In the intervening period even elementary city-life was unknown, and the prevailing economy did not require it. Now we encounter the real formative period of Indian civilization, much more certainly than in any preceding period; henceforth we can trace the continuity of civilization through the succeeding ages.

3

Soon some of the *janapadas* were to develop into *mahā-janapadas* of the sixth century B.C. These latter came into being by some of the stronger *janapadas* engulfing the weaker ones, a process clear at the time of Buddha and Mahāvīra.[8]

7 D. C. Sircar, *Studies in the Society and Administration of Ancient and Medieval India,* I, Calcutta, 1967, p. 1.

8 It is difficult to agree with Wagle that the *mahā-janapadas* represented one or more extended kin-groups, Narendra Wagle, *Society at the Time of Buddha,* Bombay, 1966, p. 35. He himself admits that neither Magadha nor Kosala could refer to an extended kin-group, *ibid.*, pp. 37 and 38. Even a *janapada,* with its heterogeneous population, could not be a kin-group.

Whether the weaker ones lost their identity altogether is not clear, but it appears more probable that they survived to form constituent parts of the *mahā-janapadas,* anticipating an essential feature of later Indian imperialism. In the earlier stages one *janapada,* one city (the capital), seems to have been the rule, but the *mahā-janapadas,* by their very nature, became multi-city kingdoms.

Two or three centuries after their emergence, some of the *mahā-janapadas* became dissociated from their Kṣatriya affiliation, and non-Kṣatriya rulers took over.[9] The *janapada* gradually ceased to mean a territorial unit and came to denote only an ill-defined region or countryside. Territorial units then were to be known as *rāṣṭra, viṣaya* or *vijita.*[10]

It is well-known that the early Pali literature gives a list of sixteen *mahā-janapadas* extending from north-western Pakistan to east Bihar and from the northern sub-montane regions down to the Godavari. The omission of western Rajasthan, Gujarat, Orissa and the south is significant and may have a bearing on the spread of urbanism at the time of the composition of the list. The number sixteen was conventional, and the enumeration of the *janapadas* varied with the geographical ken from time to time and perhaps also with the spread of Buddhist and Jaina proselytization. The Sanskrit Buddhist text *Mahā-vastu* gives a slightly different list by the omission of the two north-western countries Gandhāra and Kamboja and inclusion of Śivi and Daśārṇa.[11] The Jaina *Bhagavatī-sūtra* gives a widely different list, which includes Vaṅga (east Bengal) in the east and Malaya (the Nilgiri region) in the south.[12] But the conventional number sixteen remains unchanged.

9 It is a significant commentary on the theoretical caste-system that from the days of the Nandas in the fourth century B.C. down to about the eighth century A.D., when the Rājpūt dynasties started their career in north India and a Kṣatriya status was invented for them, there was hardly a Kṣatriya ruling dynasty, except some minor *gaṇas.*

10 It is noteworthy that for *janapada* in Kauṭilya's list of *saptāṅgas,* the seven limbs of the state, *Artha-śāstra,* VI, 1, the *Amara-koṣa,* II, 8, 4, substitutes *rāṣṭra.*

11 *Mahā-vastu,* ed. E. Senart, I, Paris, 1882, p. 34.

12 *Bhagavatī-sūtra,* XV, 1, 28.

4

Within the *janapada,* there were different types of settlement. According to one enumeration, that of Patañjali, the types were *grāma, ghoṣa, nagara* and *saṁvāha,* all specifically stated to be fit for the residence of decent people (*ārya-nivāsa*).[13] Though the first two do not directly concern us here, they may be discussed in brief as a prelude to the understanding of the city.

The primary unit was the *grāma* (village), which even now contains the bulk of the Indian population. According to Kauṭilya, the population of a village should be mostly composed of Śūdra cultivators of soil[14]—an attitude which is different from that of the law-givers, who would like pious Brāhmaṇas to live in the village (chapter IV, section 6); but it is more realistic, as who else but the cultivators could feed the non-food-producing population of the village itself and of the city?

But that there were specialized villages is clear from numerous references to villages called after craftsmen, traders and professionals and even castes like the Brāhmaṇa and outcastes like the Caṇḍāla.[15] Perhaps they did not constitute the entire population of the village but formed the major part of it. References to such villages are very frequent in Pali texts and might reflect contemporary conditions in eastern India more than elsewhere.

Villages were of different sizes. A village should consist of one hundred to five hundred families, says Kauṭilya,[16] but the Jātakas refer to villages with thirty to one thousand families.[17] The *Vinaya-Piṭaka* definition of a village as consisting of a single *kuṭī* or two, three or four *kuṭīs*[18] is absurd on the face of it, unless *kuṭī* here denotes something other than its ordinary

13 Patañjali's *Mahā-bhāṣya,* under Pāṇini, IV, 3, 84. *Grāma, nagara* and *ghoṣa* are grouped together elsewhere as well, for example, *Divyāvadāna,* Darbhanga, 1959, p. 358.

14 Kauṭilya's *Artha-śāstra,* II, 1.

15 Such villages are those of carpenters, weavers, smiths, potters, etc., and even hunters and thieves. For references, see Ratilal M. Mehta, *Pre-Buddhist India,* Bombay. 1939, pp. 183 and 184.

16 Kauṭilya's *Artha-śāstra,* II, 1.

17 Mehta, *op. cit.,* p. 174.

18 Wagle, *op. cit.,* p. 13.

meaning of 'cottage'. But small hamlets did exist, and the *Vinaya-piṭaka* might be referring to them. Perhaps the word *kheṭa* (Hindi *kheḍā, heḍā*) was sometimes added to their names to express contempt.[19]

Then, as now, the predominant occupation of the villagers was agriculture, which, along with a lesser density of population, is one of the features distinguishing the rural areas from the urban ones all over the world and throughout the ages after the growth of urbanization. Even the specialized villages mentioned above need not be much of an exception, as the craftsmen inhabiting them could easily divide their time between their craft and the soil, as agriculture as was practised then did not require full-time attention.[20]

Pastoral settlements were also known and were called *ghoṣa*.[21] A type of village referred to in Pali literature as *goniṣādi-niviṣṭa-grāma*,[22] 'village occupied by cattle-stalls,' may be the same as *ghoṣa*, both denoting an organized cattle-farm, perhaps like the much earlier ash-mound sites of the lower Deccan. Excavation at two such sites, Utnur and Kupgal, has revealed that they were neolithic cattle-pens.[23]

5

The last item of Patañjali, *saṁvāha*, is not of common

19 Pāṇini's *Aṣṭādhyāyi*, VI, 2, 126. The meanings of the words went on changing with times, cf. Dasaratha Sharma in *Anekānta*, Delhi, XV, pp. 119 and 120, quoting Hariṣeṇa's *Bṛhat-kathā-koṣa* of the eleventh century, according to which: *grāma* is a unit with a tall fence; *kheṭa* is surrounded by rivers and hills, and *karvaṭa* by hills; *maṭamba*, a new term, is a collection of five hundred villages; *paṭṭana* has diamond-mines; *droṇa-mukha* is on the sea-coast; and (*saṁ*)*vāhana* or *sanniveśa* is on the hills. For other suggested meanings, see *ibid.*, pp. 51 to 56.

20 Even now in India, particularly where agriculture is carried on in a traditional way, the cultivator seeks other employment during the periods intervening between the tilling- and harvesting-times.

21 Pāṇini's *Aṣṭādhyāyi*, VI, 2, 85. The *Amara-koṣa* defines *ghoṣa* as a small village (*palli*) of cowherds (*ābhīra*), II, 2, 20. Strongholds for cattle (*gomatī pur*) were known in early Vedic times, A. A. Macdonnell and A. B. Keith, *Vedic Index of Names and Subjects*, London, 1912, *s. v. pur*.

22 Wagle, *op cit.*, p. 14. The Pali form has been Sanskritized here and elsewhere.

23 F. R. Allchin, *Neolithic Cattle-keepers of South India*, Cambridge, 1963.

occurrence, but to bring his list in general line with that frequently occurring in Pali literature, namely *grāma, nigama* and *nagara,*[24] we may take *saṁvāha* to be identical with *nigama,* which, as we shall see below (chapter IV, section 2), was a market-town.

6

Urban settlements, which form the subject of this work, have been only incidentally touched upon above but will be discussed in greater detail in the subsequent chapters. Here we may digress a little and see how far Redfield's theory of urban-rural continuum[25] is reflected in the pattern of settlement outlined above.

According to this thoery, based on the study of four communities in the Yucatán peninsula of Mexico, the city, town, peasant-village and tribal village would appear in a relative order—the same order as they would appear on the map,—each with a progressively increasing (proceeding from the tribal village to the city) extent of some social, economic and cultural traits. These traits have been specified as: less isolation; greater homogeneity; more complex division of labour; more secular professional specialization; greater development of economy based on money; less organized kinship; less stringent social control and greater dependence on impersonal control-institutions; feebler affiliation to religion and superstitious beliefs; and greater individual freedom. In short, what is noticeable is an increase in the disintegration of traditional culture and in individuality.

Such studies are possible only in living communities, and their conclusions can only be doubtfully applied to ancient communities. Indian literature is not só explicit that any generalization on these variables is possible. Nor is archaeology of any avail here. On broad considerations, however, it may be inferred that some elements of these variables were present in

24 Wagle, *op. cit.*

25 Robert Redfield, *The Folk Cultures of Yucatán,* Chicago, 1941, as summarized in Leonard Reissman, *The Urban Process—Cities in Industrial Societies,* New York, 1964, pp. 126 and 135. Redfield's field-observations have been criticized, *ibid.*

the ancient Indian pattern of settlement. The varied population of the city no doubt produced greater heterogeneity and less isolation than in the village. The diversity of occupations gave rise to a larger division of labour than was required by the rural economy and tended to loosen bonds of kinship. Trade, largely based on money, gave the people greater mobility. The lessening of orthodox tradition, the natural outcome of all this, promoted a degree of secularization, which would explain the Brāhmaṇical hatred of the city (chapter IV, section 6). The relative prosperity of the city eventually gave rise to a class of people with greater leisure and gave a fillip to the growth of art and secular literature (not included in the variables of Redfield).

The location of settlements could have only partially conformed to Redfield's pattern. While the tribal village, then as now, were located in the remoter regions,[26] any rigid order in the positioning of the city, town and peasant-village would appear to be too schematic in a spontaneously-growing society. Nevertheless, there must have been, again then as now, peasant-villages around urban areas, unless extensive areas of woodland intervened between them.

7

More than the applicability of Redfield's theory to ancient Indian conditions, it would be interesting to know how far the ancient pattern of settlement can be compared with that of contemporary India. To know the latter one can do no better than seeing what are the types recognized in the present-day census-operations and what are the criteria followed in them in recognizing the types. These have been kindly summarized by Dr. B. K. Roy Burman, Deputy Registrar General, India, in a letter to the author which is reproduced below with his permission:

> '(1) *Hamlet*: No definition has been adopted by the census, but by this term we mean a small cluster of homesteads in rural territory.

26 Kauṭilya's *Artha-śāstra*, II, 1: 'Vāgurikas, Śabaras, Pulindas, Caṇḍālas and wild people should guard the regions between the gates of the *janapada*.'

'(2) *Village :* Village is recognized as the basic area of habitation. In the rural areas the smallest unit of habitation, viz. the village, generally follows the limits of a revenue-village that is recognized by the normal district-administration. The revenue-village need not necessarily be a single agglomeration of habitations. But the revenue-village has a definite boundary and each village has a separate administrative unit with separate village-accounts. It may have one or more hamlets. The entire revenue-village is one unit. There may be unsurveyed villages within forests, etc., where the locally-recognized boundaries of each habitation area are followed within the larger unit of, say, the forest range-officer's jurisdiction.

'(3) *Town :* To qualify for an urban area, a place should have either a municipal corporation or municipal area, or be under a town-committee or a notified-area committee or a cantonment-board. In addition, each census has adopted a number of census-towns, which do not enjoy any statutory label of administration. This has been considered desirable in order to obtain a truer measure of urbanization, as it is usual for an administrative label to fall some way behind actual achievement. The census-towns were determined on the basis of a number of empirical tests:

(*a*) with a density of not less than 1,000 per square kilometre;

(*b*) with a minimum population of 5,000;

(*c*) with three-fourths of the occupations of the male population being outside of agriculture; and

(*d*) with, according to the Superintendent of State, a few pronounced urban characteristics and amenities, the definition of which, although leaving room for vagueness and discretion, is yet meant to cover newly-founded industrial areas, large housing-settlements, or places of tourist importance which have been recently served with civic amenities.

'(4) *Market-town and industrial town :* The functional character of the town is determined by the percentage of workers under one occupation to the total workers in the town. If workers under one of the occupational form 40 p.c. or more of the total workers, it is a monofunctional town, e.g. industrial town or service-town, etc.

'(5) *City* : Any town having a population of 100,000 or more is termed a city.'

8

Shorn of modern terminology and administrative practices, as surveyed villages, revenue-units, muncipal area, town-committee, notified-area committee, cantonment-boards and industrial towns (not possible in the pre-industrial *milieu*), the following broad points of comparison arise:

(1) The village was, and still is, the basic area of habitation, though the existence of smaller units, hamlets, was, and is, not precluded.

(2) A higher density of population and a larger population, largely non-agricultural, would distinguish a town from a village. While in modern days a definition of the population and the density thereof has been laid down, no such definition anciently existed. In fact, Patañjali says that one should not be too fastidious about the distinction between a town and a village.[27] But this does not mean that 'towns were nothing more than amplified villages, only somewhat richer, more elaborate and sumptuous.'[28] The political and economic functions of the two were different: the town was distinguished by its being a political and commercial centre and by its predominantly non-agricultural population. Both these points would bear emphasis, as they are more important and less arbitrary than population and its density.

(3) It has been said above (chapter I, section 7) that the ancient distinction between the town and the city is hard to make out. The modern criterion of the city having a population of an arbitrarily-fixed figure only means that it is larger than the town, there being no functional difference between the two. Similarly, as we shall see in the next chapter, in ancient times there were the larger *nagaras* or *puras* and the smaller urban units—*droṇa-mukha, khārvaṭika, saṁgrahaṇa,* etc.—all perhaps loosely callled *śākhā-nagara*.

27 Patañjali's *Mahā-bhāṣya,* under Pāṇini, IV, 2, 109.

28 Amita Ray, *Villages, Towns and Secular Buildings in Ancient India,* Calcutta, 1964, p. 28.

(4) In the market-town of today we may see the successor of the ancient *nigama* and *puṭa-bhedana*.

The broad pattern of settlement has thus endured during the last two millennia and more, if recently modified by the consequences of industrialization.

CHAPTER IV

The City in Literature

1. Names of cities
2. Types of urban settlement
3. Conventional description of the city
4. Features of the city
5. Urban government
6. Urban-rural tension
7. *Paura-jānapada*
8. Life in the city
9. The city as a centre of education
10. The city as a place of pilgrimage

1

TRADITION, particularly as recorded in the Epics and Purāṇas, persistently ascribes the foundation of cities to particular kings, who are often believed to have given their names to the respective cities. For example, Kuśāmba founded Kauśāmbī, Vasu Vasumatī (Rājagṛha-Girivraja), Viśāla Vaiśālī and Mithi Mithilā. Rāma made Kuśāvatī for Kuśa, Hastin made Hastināpura, Mahiṣmat Māhiṣmatī and Śrāvasta Śrāvastī. A king Kuśāgra gave another name, Kuśāgrapura, to Rājagṛha. The name Mālinī was changed to Campā or Campāvatī by Campa. Takṣa and Puṣkala were respectively responsible for Takṣaśilā and Puṣkalāvatī. Madhu's city was Madhu(thu)rā.[1]

These mythical statements need not be taken seriously, notwithstanding their stout defence by some.[2] What makes them

1 *Rāmāyaṇa*, I, 32, 5; I, 47, 12; I, 47, 4; VII, 108, 4, etc.

2 Cf. 'To assert that such kings were eponymous is to discard the evidence supplied by many countries and all times. One might equally assert that Alexander, Seleucus and Constantine were merely eponymous heroes of Alexandria, Seleucia and Constantinople; or that Columbus, Tasman or Rhodes were mythical persons invented to account for Columbia, Tasmania and Rhodesia.' F. E. Pargiter, *Ancient Indian Historical Tradition*, London, 1922, p. 137.

all the more devoïd of credibility is that the tradition is not uniform. Thus, according to the Buddhists, Kauśāmbī was named after a sage Kuśamba living there,[3] and Śrāvastī after another sage Śrāvasta[4], as Kapilavāstu took its name after the sage Kapila.[5] Kuśāgrapura, one of the names of Rājagṛha, meant to Hiuen Tsang nothing more than the city of superior grass (*kuśāgra*).[6] A third tradition about Kauśāmbī is that the city owed its name neither to king Kuśāmba nor to the sage of that name but to *kuśāmba*-trees growing there.[7] While in the *Mahābhārata* each of the five sons of Uparicara—Bṛhadratha, Pratyagra, Kuśāmba, Yadu or Lalittha and Māvella—founded a city and named it after himself,[8] the story of Uparicara's five (unnamed) sons is remembered in a Jātaka, but the names of the cities are different; they are Hastipura in the west, Uttara-Pañcāla in the north, Aśvapura in the south, Siṁhapura in the east and Dardarapura in the north-west.[9]

The Epic and Purāṇic tradition can therefore be taken merely to show that sometimes it was believed that cities could be founded only by kings; no other factor was envisaged to be responsible for the expansion of urbanism—a belief which ignores the interplay of variables that went into the making of cities.

3 Aśvaghoṣa's *Saundara-Nanda,* I, 58.

4 Buddhaghosa's *Papañca-sūdanī,* ed. F. Woods and D. Kosambi, Pali Text Society, London, 1922 and 1928, I, p. 59, and *Khuddaka-pāṭha,* ed. H. Smith, P. T. S., London, 1915, p. 105. At both places, altogether ignoring the Sanskrit form of the word, Buddhaghosa gives an alternative derivation of the Pali form Sāvatthī as: *savvaṁ ettha atthi ti,* 'because everything exists here'.

5 Aśvaghoṣa's *Buddha-carita,* I, 1; Buddhaghosa, *passim.*

6 Samuel Beal, *Buddhist Records of the Western World,* London, 1906, II, p. 149.

7 Buddhaghosa's *Papañca-sūdanī,* II, pp. 389 and 390; Jinaprabha-Sūri's *Vividha-tīrtha-kalpa,* ed. Muni Jinavijaya, Santiniketan, 1934, p. 23. That places were sometimes named after trees standing at or near them is clear from Pāṇini's *Aṣṭādhyāyī,* IV, 2, 82. Cf. numerous place-names like Pipra, Pipri, Piprawa, etc., all from *pīpal*-tree, in east Uttar Pradesh. Pāṭaliputra was so named after a flowering *pāṭali*-tree growing there, A. S. Altekar and Vijayakanta Mishra, *Report on Kumrahar Excavations,* Patna, 1959, pp. 3 and 4.

8 Pargiter, *op. cit.,* p. 100.

9 Ce'iva-Jātaka, *The Jātaka,* ed. Fausböll, Pali Text Society, London, III, 1883, p. 454.

2

That there grew up different types of urban settlement is clear from literature, though it is not always possible to distinguish the shades of differences.

The *Amara-koṣa* gives thè following words as synonymous, all standing for town or city: *pur, purī, nagarī* (the latter two no doubt including *pura* and *nagara* respectively), *pattana, puṭa-bhedana, sthānīya* and *nigama*. It adds that *śākhā-nagara* ('branch-town') is a town (*pura*) other than *mūla-nagara* ('main city', probably the capital).[10] Each of these words may be examined.

In early Vedic literature *pur* meant 'rampart', 'fort', 'stronghold', and did not bear any urban significance.[11] In later times the meaning of rampart or fortification assumed lesser importance, and the derivative word *pura(ī)* became identical in meaning with *nagara(ī)*.[12] *Pura(ī)* is not common in Pali texts.

The origin of the word *nagara* is uncertain. The derivation *naga+ra* or the connexion with *agāra* has been suggested, and a non-Aryan origin has been suspected;[13] but this will remain doubtful till the non-Aryan word is identified. In Vedic literature the first occurrence of the word is in the *Taittirīya-Āraṇyaka*.[14] It is the commonest word in Sanskrit and Pali to denote a city.

Pattana is again of uncertain origin. As we shall see below (section 6), Kālidāsa uses the word to mean a city. *Sthānīya,* literally 'a place to stay at', gave rise to the modern word *thānā,* 'a staying-place', 'police-station'. According to Kauṭilya,

10 *Amara-koṣa,* II, 2, 1 and 2. The commentator Maheśvara says: 'Some find differences between the words: *pura,* etc., is a place where many craftsmen live and where there is much transaction between merchants and others; *pattana,* etc., is the city where a king and his courtiers live; *sthānīya,* etc., is an extensive city which is surrounded by a wall, etc. . . *Mūla-nagara* is the capital.' These distinctions may not be authentic and true for the period of the *Amara-koṣa.*

11 A. A. Macdonnell and A .B. Keith, *Vedic Index of Names and Subjects,* London, 1912, *s. v. pur.*

12 Cf. *Rāmāyaṇa,* I. 5, 6; *Ayodhyā nāma nagarī . . . yā purī.* In the *Mahābhārata* Hastināpura is often called *nagaraṁ nāga-sāhvayam.*

13 M. Monier-Williams, *Sanskrit-English Dictionary,* and T. W. Rhys Davids and William Stede, *Pali Text Society's Pali-English Dictionary, s. v. nagara.*

14 *Taittirīya-Āraṇyaka,* I, 11, 18 and I, 31, 4.

a *sthānīya* should be located at the centre of eight hundred villages and could at times serve as the capital.[15]

The odd word *puṭa-bhedana* also occurs in the *Mahā-parinivvāna-sutta* for Pāṭaliputra[16] and in the *Milinda-pañha* for Sāgala (*nānā-puṭa-bhedana*).[17] The latter has been taken to mean 'the distribution-centre of parcels of merchandise of many kinds.' Kauṭilya says more explicitly that a *sthānīya* should be *paṇya-puṭa-bhedana,* 'opening-place of parcels of salable commodities.'[18] An urban godown of goods may thus be indicated That the *Milinda-pañha* and the *Artha-śāstra* thought it necessary to add the qualifying words *nānā* and *paṇya* respectively shows that *puṭa-bhedana* in their times had not acquired a generic meaning of 'city' as it did later on at the time of the *Amara-koṣa.*

Nigama has been partly discussed above (chapter III, section 5). The indications are that standing between *nagara* and *grāma, nigama* would mean a merchant-town, a market-place.[19] Its mercantile association is manifest: a merchant is called *naigama;*[20] the word also means 'the path of merchants.[21] Small *nigamas* issued coins under their own authority, as in the Taxila region.[22] There is therefore no reason to agree with Rhys Davids that 'there is no hard and fast line between *gāma* (*grāma*) and *nigama*[23] or with Wagle that 'these two words have

15 Kauṭilya's *Artha-śāstra,* II, 1 and 3.

16 *Dīgha-nikāya,* ed. T. W. Rhys Davids and J. Estlin Carpenter, Pali Text Society, London, 1890-1911, II, p. 72.

17 *Milinda-pañha,* ed. V. Trecknei, London, 1880, p. 1.

18 Kauṭilya's *Artha-śāstra,* II, 3. The word has been translated as 'merchant-town', R. P. Kangle, *Kauṭilya's Artha-śāstra,* Bombay, 1963, II, p. 70.

19 Later lexicons, for example the *Medinī,* equate *nigama* with *haṭṭa,* thus emphasizing its merchant-town aspect. But whereas medieval and modern *hāṭs* are periodical markets, *nigamas* must have been permanent settlements.

20 *Amara-koṣa,* II, 9, 78.

21 *Ibid.,* III, 3, 139.

22 D. R. Bhandarkar opposes the meaning of *negamā* (*naigamāḥ*) on the Taxila coins as guilds or corporations as there is no authority for this meaning and says that the word should be taken in its ordinary sense 'body of townsmen', *Carmichael Lectures,* Calcutta, 1918, pp. 174 to 178.

23 C. A. F. Rhys Davids in *Cambridge History of India,* I, second Indian reprint, Calcutta, 1962, p. 178.

been used more or less as synonyms'[24] in Pali literature. Everything points to the *nigama* as being distinct from *grāma* and close to *nagara* in so far as they were not identical.

Śākhā-nagara, as distinct from *mūla-nagara,* is self-explanatory. The *Mahā-parinivvāna-sutta* applies the terms to Kuśīnagara along with other derogatory terms.[25]

In addition to the above, there were a few other terms to denote urban settlements of different types. It has been said above that according to Kauṭilya a *sthānīya* was to be located in the midst of eight hundred villages; in times of emergency, when no *durga* (below, p. 48) was available, a *sthānīya* was to be the place of royal residence with the treasury.[26] Perhaps the *durga* itself was a *sthānīya* with the distinction of being the capital. Besides, Kauṭilya envisages a *droṇa-mukha* at the centre of four hundred, a *khārvaṭika* of two hundred and a *saṁgrahaṇa* of ten villages.[27]

While the given numbers of villages may be schematic and artificial, they do indicate the relative importance of the urban areas; their actual existence is corroborated by texts of a different nature. The *Divyāvadāna* knows of the *karvaṭa* and *droṇa-mukha*.[28] Vātsyāyana speaks of *nagara, pattana* and *kharvaṭa*.[29]

Most of these units were no doubt supra-rural and near- or

24 Narendra Wagle, *Society at the Time of the Buddha,* Bombay, 1966, p. 20.

25 *Dīgha-nikāya,* II, p. 146. The other terms are *kuḍḍa* and *ujjaṅgala.* The latter has been taken to mean that the defences of Kuśīnagara were made of jungly shrubs and were therefore flimsy, Wagle, *op. cit.,* p. 24. This is reading too much in the word, which only means 'jungly'.

26 Kauṭilya's *Artha-śāstra,* II, 3.

27 *Ibid.,* II, 1. Roads leading to the *droṇa-mukha* and *sthānīya* were to be four *daṇḍas* in width, *ibid.,* II, 4.

28 *grāma-nagara-nigama-karvaṭa-rājadhāni, Divyāvadāna,* Darbhanga, 1958, p. 181. *Karvaṭa* is mentioned at several places in the text along with the variant *kārvaṭika,* which also means the keeper of a *karvaṭa, ibid.,* p. 460. For *droṇa-mukha,* see *ibid.,* p. 319. Epic evidence suggests that the *grāma* was smaller than the *karvaṭa,* which, in turn was smaller than the *nagara,* E. Washburn Hopkins in *Cambridge History of India,* I, p. 239. The meanings of these words went on changing with times, see above, p. 37, n. 19; also Udayanarayan Ray in *Kavirāja-abhinandana-grantha,* Lucknow, 1967, pp. 447 to 456.

29 Vātsyāyana's *Kāma-sūtra,* I, 4, 3.

fully-urban settlements, sometimes mercantile in character, and some had the distinction of being the capital.

Manu says that *gulmas,* units of army for the protection of the kingdom, should be placed in the midst of two, three, five or a hundred villages.[30]

From what Kauṭilya says, it appears that the real capital of the ruler was the *durga,* usually understood to be a fort. But the *durga* was much more than a fort: it was a full-fledged city, perhaps like the medieval fortified ones, with the king's palace and his offices at the centre, with roads and temples and with Brāhmaṇas, merchants, workmen, etc., as its inhabitants —in fact everything that would constitute a capital.[31] Weapons, food and fuel should be stocked there to the extent that would be necessary for years and should be replenished from time to time. *Durgas* might be constructed in the midst of rivers, on plain land, on hills, in deserts and in forests and, failing all of them, in the midst of the *janapada.* On the frontier there should be frontier-*durgas.*[32] Manu also speaks of *durgas* in deserts, on (level) grounds, in waters, in forests, in the midst of men and on hills; taking resort to any one of them the king should establish his *pura* (citadel), within which there should be weapons, wealth, food, water and vehicles, and Brāhmaṇas, craftsmen and warriors.[33]

Somewhat later than the cities in northern India port-towns on sea-coasts came to be established. It is difficult to determine when Indian overseas trade restarted after the disappearance of the Harappans. All the alleged post-Harappan Indian finds in west Asia and Egypt are vague and lack chronological precision. The economy of the post-Harappan cultures does not encourage any belief in the existence of much maritime trade. Nor is there any evidence of an early Indian link with the frankincense route which originated in Hadramaut in the south-Arabian peninsula and proceeded northwards. On the

30 *Manu-smṛti,* VII, 114.

31 *Artha-śāstra,* II, 4.

32 *Ibid.,* II, 1. This receives confirmation from the *Dīgha-nikāya,* which speaks of fortified towns on the marches, I, p. 83.

33 *Manu-smṛti,* VII, 70 to 76. Why Brāhmaṇas should live in the city considered to be impure (below, section 6) is left to one's imagination.

other hand, there is no object of foreign origin in the early historical levels of any excavated Indian city; those of Taxila (Bhir Mound), which was under Achaemenid occupation for about a century, are no exception.[34] There is thus no evidence of any overland foreign trade either.

However, port-towns, indicative of sea-borne trade and hence of a new factor in Indian economy, did probably come into existence even before the start of the vigorous Indo-Roman trade in the first century A.D. There is no clue about the articles that were traded in the earlier days, and it may only be guessed that what was sent out in later times—textiles and spices—formed the earlier exports as well.

Port-towns on the western coast—Roruka, the capital of Sauvīra, Śūrpāraka and Bharukaccha—find mention in Pali texts and elsewhere. Less frequent are references to Kāvīra(verī)-paṭṭana in the south; also somewhat later came the development of Tāmralipti in the east as a port-town.

It is thus clear that in course of time there sprang up urban settlements of varied types, differing from each other in dimensions and functions but all with the common characteristic of being basically non-agricultural units. It is unlikely that the elaboration of types had come into being even in the early days of urbanism, when the only know terms were *nagara* (including *pura*) and *nigama*.

3

Literature fails to give a realistic picture of any city. Such descriptions as are available are repetitive and conventional to the extreme: we are told of every city that there were high defensive walls and deep ditches, wide streets, large portals, sky-touching mansions with banners, busy and prosperous markets, flowering trees, parks, waters with lotuses and geese,

34 Marshall, while thinking that Taxila owed its foundation to Darius I, 'though there is no tangible evidence to support the conjecture,' adds: 'To what extent the Persian domination made a durable impression upon the conquered Indian peoples there is no evidence to show,' John Marshall, *Taxila*, Cambridge, 1951, I, pp. 12 and 13. About the theory of the bent-bar punch-marked coins of Gandhāra being equivalent to the double *sigloi* of the Persian provinces, see chapter VI, section 11.

well-dressed persons and music in the houses. This is the sum and substance of the portrait of Ayodhyā and Laṅkā in the *Rāmāyaṇa*.[35] In the same strain the *Saundara-Nanda* eulogizes Kapilavāstu,[36] as the *Lalita-vistara* does Vaiśālī[37] and the *Divyāvadāna* mythical cities.[38] The extravagant description of Sāgala, the capital of Menander, in the *Milinda-pañha*[39] leaves us no wiser. The Jaina texts go even a step further: they have a set passage describing the city, which they do not even care to repeat in all cases but indicate by the word *varṇaka* following the name of the city. Even an obscure place like Vāṇiyagāmā has the same *varṇaka* as the larger ones.[40] The text of the *varṇaka* as given in the *Aupapādika-sūtra*[41] does not add anything to our knowledge. Even inscriptions of later dates are of no avail. For example, the Mandasor inscription of the fifth century speaks of Daśapura only in the conventional way.[42]

35 *Rāmāyaṇa,* I, 5, 6 to 18 (Ayodhyā), V, 2, 10 to 54 *et passim* (Laṅkā).
36 Aśvaghoṣa's *Saundara-Nanda,* I, 42 to 47.
37 *Lalita-vistara,* ed. S. Lefmann, Halle, 1902-08, III, p. 31.
38 *Divyāvadāna* pp. 195 and 530.
39 *Milinda-pañha,* pp. 1 to 3.
40 *Uvāsaga-dasāo,* ed. P. L. Vaidya, Poona, 1930, p. 3.
41 Quoted in *ibid.,* pp. 119 and 120.
42 J. F. Fleet, *Inscriptions of the Early Guptas and their Successors,* Corpus Inscriptionum Indicarum, III, Calcutta, 1888, pp. 81 and 82. As an exception to what has been said above, it should be mentioned that some early medieval inscriptions which embody legal documents and are not in the *kāvya* style do give factual information about a few towns of the age. An inscription from Ahar, District Bulandshahr, of the ninth and tenth centuries, gives a matter-of-fact picture of the layout of the town of Tattānandapura. Mention is made of the town's highway (*bṛhad-rathyā*), road to the market (*haṭṭa-mārga*), lanes (*ku-rathyā*), eastern market, implying the existence of other markets, location of houses of burnt brick with a specified number of rooms, temples, etc., D. R. Sahni, 'Ahar stone inscription,' *Epigraphia Indica,* XIX, 1927, pp. 52 to 62. The details whet further curiosity: what, for example, was the functional or dimensional difference between a *rathyā* (literally a road fit for chariots) and a *mārga* (the derivation of which, from root *mṛg,* 'to search,' does not explain anything)? As the inscription is removed from our period by hundreds of years, and as its scope and intent are restricted, the portrayed picture of Ahar, out of which a plan of the city can be prepared, need not be taken as reflecting much earlier conditions. But archaeologists interested in medieval town-planning would do well to excavate this well-documented site, where numerous mounds are said to exist. Also the Siyodoni inscription, A. D. 903 to 968, *Epigraphia Indica,*

4

Through the prolixity of the conventional descriptions emerge a few facts about the early cities—at least a few features which they were expected to have. The most persistent feature is the *parikhā* (moat), one or more, and *prākāra* (rampart) with towers and gates. That the moat and rampart were the result of the same operation, namely the heaping up of the material scooped out to form the moat, has been recognized at all excavated sites where the rampart can be identified, except those where the defences are of brick or masonry. Kauṭilya makes the process clear by saying that the *vapra* (mud-rampart) should be made out of the *khāta* (dug-up material).[43]

Gates in the city-wall also figure prominently in the descriptions. Their number is sometimes mentioned and prescribed; one in each direction would be normal, but there might be more.[44] In actual practice, however, the number must have varied according to the size and layout of the interior of the city, and as the rampart was essentially defensive in purpose, the arrangement for the guarding and closing of the gates would be elaborate, as indicated in literature. Pāṇini gives the interesting information that gates were named after the place towards which they opened[45]—a practice that continued down to medieval times.

Ideally the city was laid out in squares, four or six, but this is belied by excavations at most sites. Streets were of various widths and were probably categorized on that basis, but the distinction between the categories is not clear.[46] Like gates, streets were also named after the place they led to.[47]

I, 1892, p. 162, gives welcome details about the township it is concerned with.

43 Kauṭilya's *Artha-śāstra,* II, 3.

44 The *Rāmayāṇa* gives Laṅkā four gates, VI, 3, 11. Kauṭilya would have twelve gates for the *durga,* II, 4.

45 Pāṇini's *Aṣṭādhyāyī,* IV, 3, 86.

46 For example, the *Rāmāyaṇa* mentions the *rathyās* and *rāja-mārgas* of Ayodhyā separately, I, 4, 28, though according to Kauṭilya, both were to be four *daṇḍas* in width, *Artha-śāstra,* II, 4. It is not possible that chariots would ply on *rathyās* and were not allowed on *rāja-mārgas.* See also n. 42 above. It is likely that *rāja-mārga* or *-patha* did not literally mean 'king's road' but 'chief among roads', that is the main road, cf. Pāṇini's *Aṣṭādhyāyī,* II, 2, 31.

47 Pāṇini's *Aṣṭādhyāyī,* IV, 3, 85.

Busy markets in the city are a commonplace in the descriptions. It is clear that certain streets were earmarked for particular trades and crafts. Much trade was carried out outside the city-gates, where villagers would bring their produce for sale to city-merchants and consumers. Also lived near the gates poor people including outcastes.[48]

In cities which were essentially centres of administration the ruler's palace, courts and offices must have been most important buildings. The *antaḥpura,* i.e. the citadel, of Kauṭilya, with its appurtenances, was to occupy one-ninth of the area of the *durga* (city).[49] It is useless to follow here the details of Kauṭilya's arrangements within the citadel and the glowing descriptions of palaces in the Jātakas or of the palace built by Maya for the Pāṇḍavas in the *Mahābhārata.*[50]

The extent of cities as given in literature is persistently exaggerated. Thus, Ayodhyā was twelve *yojanas* in length and three *yojanas* in width;[51] Vārāṇasī had twelve *yojanas* and Mithilā and Indraprastha seven each in the Jātakas.[52]

All this is highly idealistic. What archaeology has limitedly produced will be considered in chapter V.

5

Of urban government we know little. Kauṭilya would have a royal officer, *nāgaraka,* to look after the city,[53] and Manu prescribes a 'mighty and fierce officer of all affairs' (*sarvārthacintaka*) for each city.[54] There is nothing in literature or the edicts of Aśoka like Megasthenes' board of thirty officers, divided into six bodies of five members each, for the administration of

48 It is not necessary to quote the numerous references, which may be seen in: Richard Fick, *Social Organization in North-east India in Buddha's Time,* tr. Shishirkumar Mitra, Calcutta, 1920, p. 280; Ratilal N. Mehta, *Pre-Buddhist India,* Bombay, 1939, p. 213. Also *Maṇi-mekalai,* II, 1, 29; *Śilappadikāram,* XIV, 180 to 200, etc.

49 Kauṭilya's *Artha-śāstra,* II, 4.

50 *Mahābhārata,* II, 3 and 4.

51 *Rāmāyaṇa,* I, 5, 7.

52 For the whole question, see J. F. Fleet, 'Dimensions of Indian cities and countries,' *Journal of the Royal Asiatic Society of Great Britain and Ireland,* 1907, pp. 641 to 656.

53 Kauṭilya's *Artha-śāstra,* II, 36.

54 *Manu-smṛti,* VII, 121.

Pāṭaliputra; like many other statements ascribed to Megasthenes, this might not be based on facts.

6

'The city and its civilization has always been one thing, while the rest of the nation has been another. Between these two things there has always been a high degree of tension—on the whole a creative tension, though it has sometimes found release in exceedingly ugly moments. Between the urban life in the city and provincial life outside the city there has always been a gulf of mistrust, suspicion and contempt. Yet it is not too far-fetched to say that each was an indispensable antibody for the other's healthy growth.'[55]

The same tension between the city and the village, perhaps not rising to such pitches as to give rise to actual conflicts, is noticeable in early historical India too. The law-givers' aversion to the city is manifest. According to Gotama there is a perpetual *an-adhyāya* (non-recital of the Vedas) in the city.[56] Āpastamba has a similar injunction;[57] so also Vasiṣṭha[58] and Manu.[59] Āpastamba again forbids a *snātaka* (pious householder who has completed his studies as a *brahma-cārin*) to enter a city.[60] Baudhāyana makes this attitude very clear by declaring that nobody living in the city, with his body covered with the dust of the city and his eyes and mouth filled with it, can attain salvation even if he leads an austere life.[61] In fact, the ethos pervading the law-texts is definitely oriented towards ruralism,

55 Irvin Kristopal, 'Urban civilization and its discontents,' *American Review,* New Delhi, April 1971, p. 53.

56 *Gotama-Dharma-sūtra,* XVI, 43.

57 *Āpastamba-Dharma-sūtra,* I, 3, 9, 4. In this *sūtra* the word used is *nigama,* which, as we have seen above (section 2), was almost equivalent to city, with a mercantile association.

58 *Vasiṣṭha-Dharma-sūtra,* XIII, 1.

59 *Manu-smṛti,* IV, 107, which prescribes *an-adhyāya* even in the village, but this is not to be taken seriously, as later on it is said that the injuction should apply to a village where a corpse is lying or which is invaded by thieves.

60 *Āpastamba-Dharma-sūtra,* I, 11, 32, 21.

61 *Baudhāyana-Dharma-sūtra,* II, 4, 6, 33. In the same strain Thomas Jefferson said: 'I view great cities as pestilential to the morals, the health and the liberties of a man,' quoted in Kristopal, *op. cit.,* p. 49.

with strong kinship bonds not possible in the city. The Brāhmaṇas arrogated to themselves supreme powers of dictation over others in the village but were themselves expected to lead an austere, lust-free and blameless life. Those who could practise such a life, which presupposes a dependable source of income acceptable to the sacred law, were the more fortunate ones. For the less fortunate there were the *āpad-dharma* (emergency) relaxations, which permitted practically all means of livelihood, many of them looked down upon by the luckier ones.[62]

In contrast, the Brāhmaṇas who gathered round royal courts in various capacities—as ministers, priests, astrologers—could not have borne the inhibitions of their rural co-castemen. This dichotomy in the Brāhmaṇa fold, not necessarily based on affluence of lack of it (for there might have been rich rural Brāhmaṇas as well), is not explicitly recognized in the law-texts but was inherent in the very state of things. What mobility existed between the two groups we do not know, but there could be only one-way traffic—from the village to the town.

No such antagonism is noticed in Buddhist and Jaina literature. Both Buddha and Mahāvīra included cities and villages in their sojourns and converted their inhabitants without discrimination. There was therefore no scope for the growth of mutual antagonism.

A city would be surrounded by villages mainly occupied by craftsmen whose products were in demand in the city but whose vocation would require large areas of land which the city could ill afford to spare. Thus, in the Jātakas we hear of villages of potters (including probably brick-makers), of carpenters (who must live near their urban clientele as well as in the vicinity of forests which would give them timber) and of salt-manufacturers.[63] To these must be added peasant-villages to supply food to the citizens. Such villages formed the 'umland' of the city.[64] Every city had its suburbs,[65] sometimes spread over

62 Cf. *Manu-smṛti*, III, 150 to 167, and X, 81 to 84.

63 Mehta, *op. cit.*, p. 213 etc.

64 'Umland' has been defined as the rural land immediately surrounding a city, R. L. Singh, *Banaras—a Study in Urban Geography*, Banaras, 1955, pp. 116 to 118.

65 Cf. *Uvāsaga-dasāo*, passim.

a considerable area; for example, Nālandā was a suburb of Rājagṛha[66]—a distance of ten kilometres.

The contacts of the inhabitants of remote villages with the city must have been very infrequent, as has been the position in India at least till recent times. Virtually the only link was the tax-collector and other petty officials, the representatives of the king and his governor and therefore of the city, and they were dreaded, particularly if they were oppressive. We hear of villages reduced to desolation by them: in one village the king's people plundered the houses during daytime and thieves at night.[67] The king is enjoined to protect his subjects from dishonest and oppressive officers,[68] but the control is likely to have been feeble in the remote areas where the people must have looked upon townsmen with fear and suspicion, accentuated by their contacts with occasional itinerant merchants from the city. Supplying urban markets with food-stuff and raw material, either directly or through middlemen, and paying taxes in return of royal protection, supposed or real,—this was the economic and political adjustment of the rural hinterland with the city that dominated it.

How the urban population regarded the rural one we do not know. Later literature is replete with references to the naïveté and crudeness of the rural folk. The word *grāmya* came to mean 'vulgar'; the attitude of the townsmen was one of mockery, condescension and even unfriendliness. Kauṭilya would not allow the entry of performers, dancers, musicians, etc., into villages lest they disturb the village-folk, who 'are helpless and should be busy in the fields.'[69] Kālidāsa says that nobody takes a gem to a village for assessment when a city (*pattana*) is available.[70] He also refers to the guileless looks of village-women interested only in the produce of their fields[71] and contrasts them with the sportive glances of the ladies of the city.[72]

66 *Bhagavatī-sūtra,* XV, 1, 17.

67 *Jātaka,* V, 98. For other instances see Atindranath Bose, *Social and Rural Economy in Northern India,* I, Calcutta, 1942, pp. 142 and 143.

68 *Manu-smṛti,* VII, 123.

69 Kauṭilya's *Artha-śāstra,* II, 1.

70 Kālidāsa's *Mālavikāgnimitra,* I.

71 Kālidāsa's *Megha-dūta,* I, 16.

72 *Ibid.,* I, 27.

How far all this reflects earlier conditions we do not know. But it is likely that as time went on, the orthodox Brāhmaṇical hostility towards the city became less and less stiff, as the city's 'plentihorn imparts treasures to all,'[73] and simultaneously with the growth of wealth and sophistication of the city, its inhabitants assumed a derisive attitude to the simple villagers, 'who should be busy in the fields,' largely to feed the urban population.

7

The urban and rural folk assembled together in the capital, if in an unorganized way, on festive, ceremonial and other important occasions, such as the crowning or death of a king or the anointment of a prince. *Paura-jānapadas,* residents of the city and villages, are frequently met with in the Epics on such occasions. There is no reason to find anything of administrative import in these crowds; surely the assembled people had neither any representative character nor any voice in decision-making. The growth of the kingdom, the changed polity, the assumption of greater autocratic power by the king—all concomitants of the breakdown of the tribal organization of the society—left no room for the earlier *sabhā* and *samiti.*

8

Of the day-to-day life led by the citizens we have little idea. We hear of busy market-places (above, section 4). Parks, lakes and other frequented places of recreation are also common-places in literary descriptions. Evidently prosperity gave rise to a class of men and women who could dally away their time and at the same time patronize, appreciate and cultivate literature, art and music—the typical *nāgaraka* of Vātsyāyana. But it probably took time for this class to grow. *Samājas* were, however, a regular institution from early times, being attested in literature and the inscriptions of Aśoka, who, like the law-givers, discouraged them.[74]

73 Francis Bacon in *The World.*

74 Aśoka's Rock-edict I. It is not a fact that *samājas* are not mentioned in priestly literature, T. W. Rhys Davids, *Buddhist India,* eighth edition,

9

There is not much evidence of cities being active centres of education. Traditional education flourished best under the learned teachers of the village and, in the case of the Buddhists and Jainas, in the monastery. But each city must have had its own centres for the cultivation of secular learning. The Buddhist Jātakas are full of references to Taxila in the north-west as the seat of teachers around whom Brāhmaṇa and Kṣatriya youths flocked from different parts of the country.[75] But this again is a stereotype, no other class of literature giving Taxila that distinction. On the other hand, the north-west definitely lost its prestige in orthodox quarters, perhaps as a result of its annexion by the Achaemenids, the springing up of small non-monarchical principalities and the subsequent rule of the Indo-Greeks; the brief Mauryan interlude did not help much to retrieve the situation. It dropped out of the horizon, which, to Manu, started in the west with the river Sarasvatī in east Panjab;[76] even earlier, Ādarśa (the Aravallis) or Adarśana (the place where the Sarasvatī disappeared in south Panjab) was the western limit of Āryāvarta.[77] During the second half of the first millennium B.C. or even earlier the only contribution of the north-west to Indian culture—a most outstanding contribution indeed—was Pāṇini, putatively born in Gandhāra; but even him tradition persistently associates with the court of the Nandas of Pāṭaliputra. Whatever, therefore, its political and commercial importance, Taxila could not have produced any impact on the intellectual and cultural life of India, having lost touch with the mainstream of Indian culture.

10

While every early city had its own shrine or sacred spot, none was a place of pilgrimage for the rest of the country,

Calcutta, 1959, p. 83; they are mentioned but are looked down upon, *Apastamba-Dharma-sūtra*, I, 1, 3, 12, and I, 11, 32, 19, *Yājñavalkya-smṛti*, I, 84.

75 Bimala Churn Law, *Historical Gleanings*, Calcutta, 1922, pp. 1 to 8.

76 *Manu-smṛti*, II, 17 to 20.

77 *Baudhāyana-Dharma-sūtra*, I, 1, 2, 9; *Vasiṣṭha-Dharma-sūtra*, I, 8 and 9; Patañjali's *Mahā-bhāṣya*, under Pāṇini, II, 4, 10, and VI, 3, 109.

except in the case of the Buddhists and Jainas, with whom places associated with significant events of the lives of the masters assumed sanctity, whether they were cities or not.[78] With the attribution of sanctity to certain cities they expanded, just as the influx of pilgrims in non-urban *tīrthas*[79] and provision of amenities required by them resulted in the growth of some of them into urban centres. But these processes were a later development and are not perceptible in the early days, when no sanctity was attached to any city as such. Even Vārāṇasī was initially only a political and commercial centre, devoid of any religious importance.[80]

78 Of the four places that were associated with principal events of Buddha's life and became the primary places of pligrimage—Lumbinī (*jāti*), Bodh-Gaya (*saṁbodhi*), Sarnath (*dharma-cakra-pravartana*) and Kuśīnagara (*parinirvāṇa*), only the last was a town of a sort (above, section 2). All the secondary places of pilgrimage—Vaiśālī, Rājagṛha, Śāṅkāśya and Śrāvastī—were accidentally cities where miracles took place.

79 The earlier *tīrthas* were associated more with water than with land, cf. the derivation of the word from *tṛ,* 'to cross' (a river etc.), 'to swim'. All the *tīrthas* given in a list in Patañjali's *Mahābhāṣya,* under Pāṇini, II, 2, 33, have aquatic associations, as their names indicate—Upāsnāna, Sthūlasikta, Tuṣṇī-gaṅga, Mahā-hrada and Droṇa—and are otherwise insignificant. The idea persisted, for artificial lakes were provided near temples if they were built at places with no waters. There is no reason to think that this was the survival of a Harappan practice, A. L. Basham, *Studies in Indian History and Culture,* Calcutta, 1964, p. 23. For, in the first place, there is nothing corresponding to the Great Bath of Mohenjo-daro at any other Harappan city, so that ritual bathing in reservoirs may not have been part of Harappan belief; the reservoir at Lothal, with no steps leading down, was meant to hold water for the docking of boats. Secondly, that the Great Bath was used for ritual bathing is only a guess. Thirdly, even if it was so used, it was not a practice confined to the Indus but occurred in different climes and contexts. In the south-Arabian Sabaean-Himyaritic cities of the first millennium B.C., 'every temple contained a water installation, either a well or a series of channels cut in the floor and leading to a tank. There is evidence in some places that the worshipper had to walk through water in order to enter the temple itself, and the temple installations indicate in general that some sort of ritual ablution was practised by the worshippers.' Gus W. Van Beck, 'The rise and fall of Arabia Felix,' *Scientific American,* December 1969, p. 43.

80 Moti Chandra, *Kaśī-kā Itihāsa,* Bombay, 1962, p. 20.

CHAPTER V

The Archaeological Evidence

1. General observations
2. Extent of inhabited area and planning
3. Fortifications
4. Monumental buildings and building-material
5. Sanitary arrangements
6. Coinage

1

'THERE is no recorded instance,' says Childe, 'of a community of savages civilizing themselves, adopting urban life or inventing a script. Wherever cities have been built, villages of preliterate farmers existed previously (save perhaps where an already civilized people colonized uninhabited tracts).'[1] The early historical cities of India are no exception: they arose out of the peasant-villages which had reached the Iron Age. But archaeology has not yet succeeded in tracing the step-by-step transformation of the rural economy into an urban one. There have been quite a few excavations of sites with the Painted Grey Ware and the Northern Black Polished Ware in north India, and it is only at such sites, for reasons stated in chapter I, that the transformation should be noticeable. But the excavations, being mostly vertical, have not laid bare either culture in its entirety.

It has been often stated that the early historical period, which synchronized with the first historical cities and with the advent of the Northern Black Polished Ware, was characterized by the use of burnt-brick structures and coins and the erection of fortifications around cities. Following Childe's criteria of the city (chapter II, section 4), one should also expect an extension of the physical size of the inhabited area and the development of sculpture and writing, the last of which has been

1 V. Gordon Childe, 'The Urban Revolution,' *The Town Planning Review*, Liverpoole, XXI, 1, April 1950, p. 4.

already dealt with (chapter I, section 6, and chapter II, section 4). In the following pages, except development of sculpture, each of these items will be dealt with with reference to relevant excavated sites. Development of sculpture will be left out, as the dates of isolated early stone sculptures have not been established archaeologically but have been guessed on the basis of artistic considerations, which are likely to be largely conjectural in the absence of a reliable stratigraphical basis.

2

Due to the lack of horizontally-exposed habitations, the relative extent of the inhabited areas at the Painted Grey Ware and Northern Black Polished Ware sites is not known, so that no demographic study is possible. Significant, however, is the evidence of Atranjikhera, where:

> 'the Painted Grey Ware settlement is confined to the eastern side of the mound towards the river Kali. The earliest cultural deposit on the rest of the mound, with a few exceptions, belongs to the Northern Black Polished Ware phase, which lies immediately over the natural soil. So far about 650 square metres of the Painted Grey Ware occupation have been exposed, and it is presumed that the total area of the settlement of that Ware would be more than its double. Of course, much of the occupation has been washed away by the annual floods. Although the exact area of the Northern Black Polished Ware occupation has not yet been determined, it would be approximately 850×550 metres.'[2]

The evidence indicates the breaking of new grounds to effect a considerable increase, almost to urban dimensions, in the size of the settlement, to accommodate an enlarged population, during the Northern Black Polished Ware period. Perhaps such evidence would be repeated at other sites if it is carefully looked for.

Of town-planning in the cities of the Ganga valley there is no evidence. In the Bhir Mound (Taxila) in the north-west, however, there is no planning at all: the stone-built houses are in a jumble, and 'it is often impossible to determine where one

2 Letter from the excavator Mr R. C. Gaur.

house ends and the other begins.'[3] But there is one street, the First Street, that 'goes to the time of the earliest occupation and was maintained at an increasingly high level through each succeeding settlement.'[4]

The next city of Taxila, Sirkap, founded by the Indo-Greeks and extended and fortified by a masonry wall by the Indo-Parthians,[5] is fully planned, with a spinal street running from the north gate throughout the length of the city, with smaller streets and lanes meeting it at right angles, and with well-defined houses. Foreign in origin and conception, Sirkap is not a representative Indian city.

Sisupalgarh in Orissa is, as far as known at present, the only other well-planned city. With its origin in 300 B.C., its defensive wall was constructed in the first quarter of the second century B.C. and was reinforced by brick 'boxes' filled with earth in the next century.[6] From the regular disposition of the gates, two each on each of the four sides of the wall, and from the limited excavation in the interior, it appears that the city was laid in a grid-pattern.

Mention has just now been made of a street of Taxila. A road of Kauśāmbī had its origin in *circa* 350 B.C. and, after being reconsolidated and relaid again and again, continued to *circa* A.D. 300.[7] Similarly, a concreted road at Ahicchatrā

3 John Marshall, *Taxila,* I, Cambridge, 1952, p. 92.

4 *Ibid.,* p. 90.

5 This was Marshall's original view, John Marshall in *Archaeological Survey of India, Annual Report,* 1928-29, Calcutta, 1933, p. 62, *Guide to Taxila,* third edition, Calcutta, 1953, pp. 78, 98 and 99, and was largely confirmed in the excavation of 1944-45, which yielded a coin of Azes in a layer more or less contemporary with the building of the city-wall, A. Ghosh, 'Taxila (Sirkap) 1944-45,' *Ancient India,* 4, 1947-48, pp. 41 to 84. In his *Taxila,* however, Marshall vitally changed the chronology of Sirkap, thinking that the city-wall had been erected by the Indo-Greeks themselves. This, untenable in itself, has involved many inconsistencies in the chronology of the small finds. Thus, there are now coins of Kujūla Kadphises in Stratum IV—Śaka, and of all the Kushan rulers down to Vāsudeva in Strata III and II—supposedly Śaka and Parthian, *Taxila,* I, p. 118, and II, pp. 792 and 793.

6 B. B. Lal, 'Sisupalgarh 1948: an early historical fort in eastern India,' *Ancient India,* 5, 1949, pp. 62 to 105.

7 G. R. Sharma, *Excavations at Kauśāmbī 1949-50,* Memoirs of the Archaeological Survey of India, 74, 1969, pp. 24 to 26.

originated in *circa* 200 B.C. and lasted up to A.D. 700, with successive rises in its level.[8] All these examples indicate some civic sense, either self-imposed or enforced by an authority.

The limitedly-available layout of other cities does not indicate any planning.

3

In literature fortifications and moats around cities loom large in their description (chapter IV, section 4). In 1944 a persistent search for a fortification around Bhir Mound failed to reveal any,[9] though Marshall speaks of 'walls built of unbaked brick or mud, supplemented by timber, which has now perished.'[10] At Charsada ancient Puṣkalāvatī, no defences exist, but their prior existence is assumed, as 'the surviving account of Alexander's manoeuvres hereabouts in 327 B.C. tells us that it took a division of his troops under a trusted general thirty days to reduce the town and implies therefore that the place was fortified.'[11]

Mention has been made above (chapter I, section 3) of the enormous fortification around Kauśāmbī, having a circuit of over six and a half kilometres, believed by the excavator to date from 1000 B.C. This date will be discussed later on (chapter VI, section 5): here it may be stated that the fortification and the early levels of the site seem to have been highly over-dated. Even then, a date slightly earlier than the advent of the Northern Black Polished Ware is not unlikely, as the fortification was extant when the Ware first appeared at the site.

The fortifications at three other sites have been claimed to be earlier than the Northern Black Polished Ware—Eran and Ujjain, both in central India, and Rajghat, Varanasi. In the absence of detailed reports on any one of them, one has to depend on the scanty available notices. At Eran the mud-rampart is believed to have been erected in the middle phase of the chalcolithic occupation, the earliest Carbon-14 date of

8 Personal knowledge.
9 Personal knowledge.
10 Marshall, *op. cit.*, 1951, p. 3.
11 Mortimer Wheeler, *Charsada,* Oxford, 1962, p. 5.

which is 2035 ± 75 B.C.;[12] this is inconsistent with other dates, themselves lacking in internal consistency (chapter VI, section 2). The fortification continued to be in use in the next Period as well, dated 700 to 200 B.C.,[13] which saw iron, coins and other equipments of the early historical period. This would mean that Eran is remarkable in that at the chalcolithic stage it had a fortification which few other chalcolithic sites had[14] and is therefore eminently suitable for the study of a pastoral society transforming itself into a civilized one. Unfortunately, the published notices fail to throw any significant light in this direction. It is not impossible that a closer look at the stratification might reduce the life-span of the fortification, bringing it nearer the historical period.

The mud-fortification of Ujjain, over a kilometre both in length and breadth, with a moat has been thought to have been erected some twenty-five to thirty years after the first settlement of the site, which itself has been dated to 750 B.C. The date of the next Period, with the Northern Black Polished Ware, has been put to 500 to 200 B.C., but the initial date could easily have been later, a Carbon-14 date of the Period being 450 ± 95 B.C.;[15] in fact a later date is more probably in the peripheral regions of the distribution of the Ware. The find of two sherds of the Painted Grey Ware in the core of the rampart is not of much significance beyond showing that the Ware, now known to have survived till 400 B.C., was current before or at the time of the erection of the rampart. On the whole, no reliable evidence is available to ascribe the rampart, and the habitation in the enclosed area, to any date earlier than the early historical period, though the possibility of a slightly

12 D. P. Agrawal, *The Copper Bronze Age in India,* New Delhi, 1971, p. 99.

13 K. D. Bajpai, *Sagar through the Ages,* Sagar, 1964; *Indian Archaeology 1961-62—a Review,* 1962, p. 24; *1962-63,* 1965, p. 11; *1963-64,* 1967, p. 15.

14 Mention should now be made of the continuation of the Harappan citadel-fortification in the post-Harappan period at Surkotada in Kutch, Jagatpati Joshi in S. B. Deo (ed.), *Archaeological Congress and Seminar Papers,* Nagpur, 1972, p. 26 n.

15 *Indian Archaeology 1956-57—a Review,* 1957, p. 24; N. R. Banerjee, *The Iron Age in India,* New Delhi, 1965, pp. 15 to 18; Agrawal, *op. cit.,* p. 103.

earlier date is not ruled out. Perhaps a date round about 600 B.C. would meet the requirements.

The same may be the story at Rajghat, the site of ancient Vārāṇasī, with a huge mud-rampart dating back to the earliest occupation of the site (Period I A). If Period I B is regarded as having started in 500 B.C., on the basis of the Northern Black Polished Ware occurring therein, a sample from the early phase of the Ware having a Carbon-14 date of 490 ± 110 B.C.,[16] Period I A, with its rampart, can be regarded as dating from 600 B.C., the date 800 given to it by the excavator being much on the high side.

Thus, leaving aside the fortifications at Eran, regarded as chalcolithic in origin, we find that three other sites—Kauśāmbī, Ujjain and Rajghat—might have their ramparts dating back to a period prior to the advent of the Northern Black Polished Ware at these sites, and assuming that the Ware came into existence in *circa* 500 B.C. (at Ujjain, away from the epicentrum of the Ware it could easily have come later), a date not earlier than 600 would be appropriate for the fortifications. All of them had civic dimensions and must have enclosed real cities.

The stone fortification of Old Rajgir, forty kilometres in circuit, running at the top of the hills encompassing the valley, is of uncertain date, but a really prehistoric origin is at present out of the question in the absence of any identified prehistoric relics in the valley. In New Rajgir outside the hill-girt valley, supposed to have been established by Bimbisāra or Ajātaśatru, both contemporaries of Buddha, the habitation-area was protected by an earthern wall, of the shape of an irregular pentagon, with a circuit of about five kilometres. The south-western corner of the area thus enclosed was cut off by a stone wall with bastions, built over the rampart, to form the citadel. The stone wall was, however, absent at places, its position being taken by a brick wall. The earthen rampart was built when some deposits with the Northern Black Polished Ware had accumulated, a Carbon-14 date of the pre-rampart deposits being 265 ± 105 B.C.[17] The rampart was therefore much later

16 Agrawal, *op. cit.*, p. 103; *Indian Archaeology 1960-61—a Review*, 1961, p. 37.

17 Agarwal, *op. cit.*, p. 103; *Indian Archaeology 1961-62—a Review*, p. 7; *1962-63*, p. 5.

than the time of Buddha, when New Rajgir is believed to have been founded.

At Śrāvastī, an important city at the time of Buddha, there was no defensive wall in Period I, dated to from the middle of the sixth century to 300 B.C. and characterized by a rich deposit of the Northern Black Polished Ware, but one sprang up in the early phase of Period II, 275 to 200 B.C.—a mud-rampart, about five kilometres in circuit, later on topped by a burnt-brick wall. It has been surmised, not with much reason, that the wall was thrown up as a protection against an Indo-Greek invasion.[18]

Tilaurakot in the Nepalese *tarai,* ninety kilometres to the east of Śrāvastī, has a comparable history. In Period I, with the Northern Black Polished Ware, the city was without defences, but in the next Period, which began in *circa* 200 B.C., was erected a mud-rampart, with a brick wall on its outer slope; whether the two were of the same build is not clear.[19]

In the earlier (1940 to 1944) excavation at Ahicchatrā it was seen that there were two phases of the mud-rampart enclosing the city; it had a perimeter of almost six kilometres and had a brick wall with 'boxes' at the top, the earlier of them built later than 200 B.C., when the city became the capital of the Pañcāla rulers, the origin of the city going back much earlier.[20] In a subsequent (1963 to 1965) excavation in another part of the fortified area, however, the mud-rampart was seen to belong to Kushan times.[21]

The fortified area of Vaiśālī, a leading city during Buddha's time, had three successive walls, the earliest of brick, the next a mud-rampart and the last again of brick, respectively dated to the second century B.C., the first century B.C. to the first century A.D. and the second century A.D. or later.[22]

The first occupation of Sisupalgarh in Orissa (*circa* 300 to 200 B.C.) went without any defensive wall. It was in the early

18 K. K. Sinha, *Excavations at Śrāvastī 1959,* Varanasi, 1967.

19 D. Mitra, *Excavations and Explorations in Nepalese Tarai* (in press).

20 A. Ghosh and K. C. Panigrahi, 'The pottery of Ahichchhatra,' *Ancient India,* 1, 1946, pp. 38 and 39.

21 *Indian Archaeology 1963-64—a Review,* p. 44.

22 B. P. Sinha and Sita Ram Roy, *Vaiśālī Excavations 1958-62,* Patna, 1969, pp. 5 and 6.

part of the next Period (200 to 100 B.C.) that a massive clay rampart was built, and this was subsequently reinforced by brick revetments. The excavated gateway-complex in the western rampart is one of the most elaborate of its kind in India.[23]

There were other fortified cities in east India, such as Chandraketugarh in 24-Parganas, which had a rich settlement with a profuse quantity of the Northern Black Polished Ware. But nothing is known about the date of its fortification.

For the sake of completeness, the well-known description of Pāṭaliputra by Megasthenes, as quoted by Strabo would bear repetition: it was of the shape of a parallelogram and was girded by a wooden wall pierced with loop-holes for the discharge of arrows. It had a ditch both for defensive and sewerage purposes.[24] Arrian adds, also on the basis of Megasthenes, that the wall was crowned by five hundred and seventy towers and had sixty-four gates.[25] The wooden palisade found at Bulandibagh, a suburb of Patna, running east-west and exposed to a length of about one hundred and forty metres, has been thought to be a part of the wooden wall of Megasthenes. It takes the form of a wooden wall, made of heavy sleepers placed both horizontally and vertically in two rows, the inside being left hollow, probably to serve as a passage.[26] Who built the wall—Candragupta Maurya or the Nandas or even an earlier ruler—is not known.

The above survey of the fortifications around early historical cities shows that they fall into two chronological groups, leaving aside that of Pātaliputra, which is mainly known from a non-archaeological source: (1) those probably erected in *circa* 600 B.C., and (2) those erected in 200 to 100 B.C., when the Mauryan empire had broken up and local dynasties were cropping up, each dynasty fortifying its capital. It would be a mistake to think that all cities came to be fortified as soon as they were established. Probably, with the centralization of power under

23 Lal, *op. cit.*

24 J. W. McCrindle, *Ancient India as Described by Megasthenes and Arrian,* Calcutta, 1877, p. 66.

25 *Ibid.*, p. 205.

26 *Archaeological Survey of India, Annual Report, 1926-27,* Calcutta, 1929, p. 135.

Magadha from the fifth to the third century B.C., the need for local defences was less pressing than in the following centuries. Centres such as Hastināpura, which were not capitals in early historical times, went without any defences. Fortification no doubt gave the city a metropolitan status, perhaps that of a *mūla-nagara* (chapter IV, section 2).

4

Of monumental buildings, one of Childe's criteria of the city (chapter II, section 4), there is not much trace. In Bhir Mound, the first city of Taxila, however, was encountered a pillared hall within a house-complex with larger rooms than elsewhere; if the house belonged to a dignitary, the hall might be reception-place. 'But the position which it occupies alongside the street suggests, on the analogy of the houses of Sirkap, that it served rather as a shrine of some sort, and the house attached to it may have been occupied by priests and their attendants and disciples.'[27] In the 1944-excavation a substantial apsidal structure, with cells inside and other buildings outside, almost certainly a public building, though of uncertain purpose, was exposed.[28] In the second city of Taxila, Sirkap, there are many monumental buildings—a palace, an acropolis, *stūpas*, etc., mostly belonging to Indo-Parthian and Kushan levels, but, being too late for our period, they need not concern us here.

At Kauśāmbī, in a corner of the fortified area was a palace, the first phase of which, made of random-rubble, is thought to have been built prior to the advent of the Northern Black Polished Ware, the second, of dressed stone, immediately after the introduction of the Ware and the third, stone-faced and brick-cored, when the Ware was on the decline. In view, however, of some late features in the complex, the dates may be regarded as problematic. Mention should also be made of the Ghoṣitārāma monastic complex in the north-eastern corner of the city, where the *stūpa* was initially built in the fifth century

27 Marshall, *op. cit.*, I, p. 98.

28 Personal knowledge; also Y. D. Sharma, 'Exploration of historical sites,' *Ancient India*, 9, 1953, p. 134 and pl. LII.

B.C. and was added to in subsequent centuries.[29] Even in the earlier days of the city the *stūpa* must have been a landmark.

At Rajgir, in the area identified as the site of Jīvakāmravana, were found a series of elliptical structures, which might represent the earliest form of Buddhist monasteries; but, though seemingly early, they are of uncertain date. Of the other early monuments at Rajgir, mention should be made of the *stūpa* erected by Ajātaśatru, to the west of New Rajgir according to Fa Hien and to the east of the Veṇuvana area according to Hieun Tsang, ruins of *stūpas* existing in both these areas.[30]

This practically exhausts the list of monumental buildings identified in the earlier cities. Other Buddhist monuments no doubt sprang up at places associated with Buddha right from his death, and Aśoka embellished and enlarged many of them, as he established new ones as well. But they were not connected with cities as such, though they might have been located in their vicinity, as Sarnath near Vārāṇasī and Sanchi near Vidiśā. It can be safely said that the early Indian city did not grow up with any monumental religious edifice as the nucleus.

One reason of the virtual absence of remains of monumental buildings at excavated sites might be that these buildings were made of perishable material like timber, and many are the references to such buildings in Pali literature. But it is admitted that nor is there any large-scale find of metal fittings, such as nails and clamps, that would be required for timber constructions. Stone, of course, was used at places, such as Taxila, where it was readily available, but of the use of burnt brick there is not much evidence in the earlier life of the cities. At most sites where evidence exists, burnt brick came into vogue either in the late phase of the Northern Black Polished Ware or, more commonly, in a still later period. Taking into consideration the metropolitan cities first, we find brick structures in the Northern Black Polished Ware levels, but it is not known from the published notices whether they were from the early or late levels: at Pāṭaliputra,[31] the origin itself of which being

29 *Indian Archaeology 1955-56—a Review*, 1956, p. 20.

30 *Ibid., 1953-54*, 1954, p. 9; *1954-55*, 1955, p. 16; *Archaeological Survey of India, Annual Report, 1905-06*, 1908, pp. 96, etc.

31 B. P. Sinha and Lala Aditya Narain, *Pāṭaliputra Excavations, 1955-56*, Patna, 1970, pp. 10 and 11.

later than the advent of the Ware, it might be presumed that the structures belonged to a late phase; Vaiśālī, where there was a single brick wall in pre-Śuṅga levels but in the Śuṅga level and onwards there was a network of brick structures;[32] Ujjain, where there were mud, mud-brick and brick walls;[33] Besnagar (Vidiśā);[34] and Ahicchatrā, where the use of burnt brick in the earlier period is attested, but where there was a free use of the material in the pre-Kushan, Kushan, and later levels.[35]

Elsewhere we have explicit knowledge that burnt brick appeared only in the late phase of the Ware or even later. At Hastināpura, in Sub-period I of Period III, with that Ware, there were only two drains and a small wall, and in Sub-period III a long wall, followed by a large number of walls in Period IV, when the Ware had disappeared.[36] At Rajghat, there were brick structures only in the late phase of the Ware, but in the next epoch there were a large number of sructures.[37] Mathurā, with scanty burnt-brick remains in Sub-period I, had a vigorous building-activity in Sub-period III, of Period II, both with the Ware.[38] At Charsada, many of the early layers were associated with mud-brick and only the later ones with burnt brick.[39] Comparable evidence is available at Tilaurakot,[40] Atranjikhera,[41] Sonpur and Chirand[42] and other sites. The evidence of Kauśāmbī is no less significant: here too burnt-brick structures appear well after the introduction of the Northern Black Polished Ware.[43]

32 Sinha and Roy, *op. cit.*, pp. 6, 29 and 32.

33 *Indian Archaeology 1957-58—a Review,* 1958, p. 50.

34 *Ibid., 1964-65,* 1969, p. 17.

35 *Ibid., 1963-64* p. 44; *1964-65,* p. 39. In the previous excavation at Ahicchatrā burnt brick appeared in *circa* 100 B.C., Ghosh and Panigrahi, *op. cit.*

36 B. B. Lal, 'Excavation at Hastināpura and other explorations in the Ganga and Sutlej basins,' *Ancient India,* 10 and 11, 1954 and 1955, pp. 4 to 151.

37 *Indian Archaeology 1963-64—a Review,* p. 16; *ibid., 1964-65,* p. 17.

38 *Ibid., 1954-55,* p. 15.

39 Wheeler, *op. cit.*, p. 18.

40 Mitra, *op. cit.*

41 *Indian Archaeology 1968-69—a Review,* 1971, p. 37.

42 *Ibid., 1961-62,* p. 5; *1964-65,* p. 7; *1968-69,* p. 6.

43 Sharma, *op. cit.*, 1969; *Excavations at Kauśāmbī, the Defences and the Śyena-citi of Puruṣamedha,* Allahabad, 1960.

Outside north India, at Navdatoli the first burnt-brick structure appears after 400 B.C.[44] At Nasik,[45] Nevasa[46] and Tripurī[47] the use of brick is post-Mauryan.

Evidence is thus complete that burnt brick became popular very well after the appearance of the Northern Black Polished Ware; it became common only in the second century B.C. and abundant even later on. The early cities were contented with mud and mud-brick structures where stone was not available, with the possibility of wooden structures, the remains of which have not survived. It has been said: 'In India, till recently the existence of kiln-burnt brick houses distinguished the town from the village, and this could serve as a yardstick even in classifying older habitations.'[48] An application of this criterion would deny a civic status even to those places which were renowned cities at the time of Buddha.

5

While there is no evidence of public sanitary arrangements, there are indications of internal arrangements attached to individual houses. In Bhir Mound sewage was thrown into private soakwells in each house. These wells took the form of: (a) unlined wells fitted with pottery jars turned upside down, sometimes with their bottoms knocked off; (2) partly-lined wells; and (3) wells lined with pottery rings, commonly known as ring-wells. All these devices go back to the earliest levels of the city.[49] At Kauśāmbī there are soakage-jars, ring-wells and pottery drains, all originating in *circa* 400 B.C.[50] Ring-wells are common at the Northern Black Polished Ware levels at all

44 H. D. Sankalia and others, *Excavations at Maheshwar and Navdatoli*, Poona-Baroda, 1958, p. iii.

45 H. D. Sankalia and others, *Report on the Excavations at Nasik and Jorwe 1950-51*, Poona, 1955, pp. 7 and 21.

46 H. D. Sankalia and others, *From History to Prè-history at Nevasa 1954-56*, Poona, 1960, pp. xiii and xiv.

47 M. G. Dikshit, *Tripurī 1952*, Government of Madhya Pradesh, 1955, p. 23.

48 Y. D. Sharma, 'Early historical cities,' *Archaeological Remains, Monuments and Museums*, New Delhi, 1964, p. 44.

49 Marshall, *op. cit.*, 1951, p. 94.

50 Sharma, *op. cit.*, 1969, pp. 37 to 39.

sites down to the Deccan and were current even in later times; they are absent, like any other device, prior to these levels and must be regarded as an innovation of the early historical period. Apart from the purpose of soakage, the fact that they sometimes occur inside rooms[51] may indicate their use as privies. This would imply a lack of open spaces in the inhabited area of the city and would contrast with earlier rural conditions, when, with ample open fields all round, the need for private arrangements did not arise.

6

Ray has dealt with the evidence of coins from excavations conducted from 1940 to the date of the publication of his work (1959).[52] It is certain that coins do not appear anywhere in the Painted Grey Ware levels[53] but do present themselves at most sites in association with the Northern Black Polished Ware. They were certainly a feature of the early historical period and were the result of accelerated trade and commerce, following the breakdown of the near-autarky of the preceding economy. In Bhir Mound coins appear right from the beginning of the city in *circa* 500 B.C.[54] It is difficult to pin-point the date elsewhere, but it would be a safe conjucture to say that by 400 B.C. coinage had gained wide currency in north India. In the peripheral regions, however, the arrival of coins was understandably later. At Prakash punch-marked coins are found only in the late levels of Period II, which ended in 100 B.C.,[55] and at Nevasa in Period IV, with Sātavāhana coins.[56] The evidence

51 Dikshit, *op. cit.*, p. 23.

52 S. C. Ray, *Stratigraphic Evidence of Coins in Indian Excavations and some allied Issues,* Numismatic Notes and Monographs, 8, Numismatic Society of India, Varanasi, 1959.

53 On the basis of an inflated chronology, we are told that the first occurrence of coins at Kauśāmbī synchronized with the Painted Grey Ware, Sharma, *op. cit.*, 1960, p. 13. It is highly doubtful if Kauśāmbī should appear at all on the distribution-map of the Painted Grey Ware and if it had a much earlier origin than the Northern Black Polished Ware. See above, section 3, and below, chapter VI, section 5.

54 Marshall, *op. cit.*, 1951, I, p. 103.

55 B. K. Thapar, 'Prakash 1955: a chalcolithic site in the Tapti valley,' *Ancient India,* 20 and 21, 1967, p. 18.

56 Sankalia and others, *op. cit.*, 1960, p. 69.

also shows that there is no reason to think that punch-marked coins predated cast copper ones, both the classes being found together.[57]

57 At Kauśāmbī the evidence seems to be that uninscribed cast coins of copper are earlier than punch-marked ones, Sharma, *op. cit.*, 1960, p. 13.

CHAPTER VI

Survival? Revival? Import?

1. Alleged Harappan survivals in later cultures
2. Western India; the Deccan; Malwa
3. The south
4. The Ganga-Yamuna *doāb*
5. Kauśāmbī
6. Eastern India
7. The Banas culture
8. Other supposed survivals
9. Socio-anthropological hypotheses
10. Beginnings of the Indian style
11. Examination of any possible foreign influence

1

RIGHT from the days of the discovery of the Indus civilization there has been speculation on the extent to which that civilization influenced the Hindu culture materially and spiritually, and it is not surprising that theories have not stopped pouring in even now, often reinforced by archaeological and socio-anthropological inferences. Consistently with this, in the early historical urbanism with which we are concerned here, some have seen the survival or revival of the Harappan urbanism.

The possible mechanism of the surviving and reviving forces has gained strength in recent years by the discovery of settlements of the later Harappa civilization in Gujarat and in the upper Ganga-Yamuna *doāb*. At Rangpur in Gujarat,[1] the Harappa civilization, after the peak of its glory (Period II A), is believed to have given way to a culture that was degenerate[2]

1 S. R. Rao, 'Excavation at Rangpur and other explorations in Gujarat,' *Ancient India*, 18 and 19, 1963, pp. 4 to 207.

2 Social anthropologists seem to cavil at such terms as 'degenerate', 'impoverished', 'primitive' and 'inferior' as qualifying any culture, cf. S. C. Malik, *Indian Civilization—the Formative Period*, Simla, 1968, pp. 12,

Harappan (Period II B), which, in turn, is thought to have developed into a phase that was transitional (Period II C) and given rise to a period of relative prosperity (Period III). Periods II C and III have been dated to 1100 to 1000 and 1000 to 800 B.C. respectively,[3] thus bringing the end of Rangpur near the beginning of the historical period, so that the possibility of Harappan survival in the latter does not look remote. Further, the Lustrous Red Ware, which started in Period II C and became exuberant in Period III, has been found in Period I C of Ahar in south-western Rajasthan, in Period IV of Navdatoli in Malwa and in Period I B of Prakash in the upper Deccan, so that it cannot be regarded as having been confined to the Gujarat corner. As it has been held that in Period II C of Rangpur 'it is only the resurgence of the Harappa culture in a new garb that we notice,[4] and that the culture of Period III was basically Harappan,[5] the occurrence elsewhere of the characteristic ceramics of the two periods, namely the Lustrous Red Ware, has been thought to be due to a 'mass movement (of the neo-Harappans) from the Kathiawar peninsula to central India and the Deccan.'[6] The implication of this belief—namely the movement of Harappan elements into the heart of India—is obvious.

Further south, two Harappan elements have been hesitatingly recognized in the south-Indian neolithic-chalcolithic culture: (1) the tradition of producing long parallel-sided blades of chert by the crested-ridge-guiding technique; and (2) the practice of painting red pots in black, though it is conceded that the painted designs have nothing in common with the Harappan ones and that the practice itself could have been derived from the chalcolithic cultures of central India and northern Deccan.[7] It has also been thought possible that the

13 and 120. No offence is meant to them by the use of the first word here; it only means in this context a regression in technology and material prosperity in a culture as compared to those of a preceding one.

3 Rao, *op. cit.*, p. 27.

4 *Ibid.*, p. 23.

5 *Ibid.*, p. 25.

6 *Ibid.*, p. 19.

7 B. K. Thapar, 'Maski 1954: a chalcolithic site of the southern Deccan,' *Ancient India*, 13, 1957, p. 24; V. D. Krishnaswami, 'The neolithic pattern of India,' *ibid.*, 16, 1962, p. 48.

Harappans derived their gold from the Mysore gold-fields, thus indicating Harappan contacts with the south, though it is admitted that the metal was available nearer the Harappan cities, for example near Kandahar in Afghanistan.[8]

The recent find of some later Harappan sites in the upper Ganga-Yamuna *doāb* has led to the conjecture that the so-called ochre-coloured ware, which underlies the Painted Grey Ware levels at Hastināpura and Ahicchatrā and the intervening black-and-red ware levels at Noh and Atranjikhera, all in the *doāb* region, had in some cases a Harappan origin through the late Harappan *doāb* sites. In fact, Rao has no hesitation in regarding the whole gamut of the ochre-coloured ware as inferior Harappan.[9]

The archaeological evidence that has been adduced in favour of the survival of Harappan elements till much later times has been summarized above. The evidence may now be examined in some detail, particularly in so far as it may have a bearing on the historical urbanism being a survival or revival of the Harappan.

2

To consider Rangpur first. While Period II B of the site may be conceded to be a degenerate continuation of the Harappa culture, Periods II C and III seem to present a definite departure from the preceding phases. In these Periods the painted designs on pots are non-Harappan, and the practice of burnishing pots with haematite was also new, unknown to the Harappans. The alleged continuity of pottery-types[10] has not been convincingly demonstrated and is at best confined to a very limited number of types against a vast range of shapes found in these Periods. Of the over one hundred graffiti occurring on the pottery of all Periods of Rangpur, most of them on that of Periods II C and III,[11] eighty have no parallels in the Indus script, and

8 Mortimer Wheeler, *The Indus Civilization,* third edition, Cambridge, 1968, p. 79.

9 S. R. Rao, Presidential Address to the Karnatak Historical Research Society, Golden Jubilee Celebration, History Conference, 1 July 1970, p. 4.

10 Rao, *op. cit.,* 1963, p. 64, fig. 16.

11 *Ibid.,* p. 128.

most of the remaining ones have only elementary resemblances.[12] It is therefore unjustified to claim that they suggest the survival of the Indus script.[13] Rao's later attempts to ascribe phonetic values to the graffiti, which he calls Late Harappan script,[14] and to the Indus script itself[15] still remain in the realm of uncertainty.

Our concern, however, is not to assess whether Period III of Rangpur was derived from the Harappa but to examine if the urban tradition of the Harappa could have in any way influenced and promoted the later-day urbanism through Rangpur, central India and the upper Deccan, contact among which is provided by the Lustrous Red Ware, a supposed derivative or evolution of the Harappan ware. The answer should be clearly in the negative. On the basis of Carbon-14 dates it is now certain that the last chalcolithic occupation of Navdatoli, Period IV, with the Lustrous Red Ware, came to an end by 1400 B.C.,[16] and on this and other considerations Period I B of Prakash has been dated from 1500 to 1300 B.C.[17] Similarly, Period I C of Ahar, also with that Ware, belonged to the thir-

12 Rao, *op. cit.*, 1963, pp. 129 to 132, figs. 47 to 49.

13 *Ibid.*, p. 25. Incidentally it is noteworthy that one of the graffiti represents a horse-rider, *ibid.*, p. 132, fig. 47, 49. As the horse was in all probability unknown to the Harappans, the graffiti indicates a new intrusive element. The use of the horse as a riding-animal began later than its use as an animal of draught, though Kramer, on the basis of a Sumerian fable, would take it back to at least 1750 B.C., S. M. Kramer, *History Begins at Sumer,* New York, 1959, pp. 133 and 134.

14 Rao, *op. cit.*, 1970, pp. 6 to 9. The overall question of graffiti on Indian pottery has been examined by B. B. Lal, 'From the megalithic to the Harappan—taking back the graffiti on pottery', *Ancient India,* 16, 1962, pp. 4 to 24, but he has drawn no conclusions.

15 S. R. Rao in *Illustrated Weekly of India,* XCII, 50, 12 December 1971, pp. 21 to 25; also his paper read at the International Symposium on Radiocarbon and Indian Archaeology, Tata Institute of Fundamental Research, 7 to 11 March, 1972. See also H. Sarkar and B. M. Pande, 'A note on a knot design from Mohenjo-daro and its occurrence in later times', *Puratattva, Bulletin of the Indian Archaeological Society,* 3, 1969-70, pp. 44 to 48. A symbol that occurs from the Harappan down to Rāṣṭrakūṭa and Mughal times must be devoid of significance.

16 D. P. Agarwal, *The Copper Bronze Age in India,* New Delhi, 1971, p. 232.

17 B. K. Thapar, 'Prakash 1955; a chalcolithic site in the Tapti valley,' *Ancient India,* 20 and 21, 1967, p. 24.

teenth century.[18] On this showing the proposed dates of Rangpur II C and III, namely 1100 to 1000 and 1000 to 800 B.C., are much on the younger side than is justified by the well-established chronology of other sites.[19] It is now certain that there was a wide gap of seven to nine hundred years between the disappearance of these chalcolithic cultures and the emergence of the historical period in the regions of their occurrence,[20] so that the chances of the former having anything to do with the latter are extremely remote. And even more remote, actually non-existent, is the likelihood of any Harappan urban tradition filtering through them into northern India, where the historical cities sprang up not earlier than 600 B.C. Any belief to the contrary would involve the following assumptions, all of them unproved: (1) Periods II C and III of Rangpur were direct evolutions from the urban Harappa; (2) through these Periods of Rangpur Harappan urban tradition intruded into the rural chalcolithic cultures of Malwa and the upper Deccan; and (3) this tradition lasted long enough in time and space to provide the stimulus for the establishment of cities in northern India in the early historical period, though the chalcolithic cultures themselves disappeared in the regions of their occurrence several centuries ago.

An all-round regression, technological[21] and otherwise, is unmistakably noticeable in these cultures, which by themselves could not reach the urban stage. A further regression seems to have taken place and persisted for a long time in central India

18 Agrawal, *op. cit.*, p. 232.

19 Malvan in Gujarat, with a sprinkling of the Lustrous Red Ware, has a Carbon-14 date of 880 ± 95 B.C. (information from Dr D. P. Agrawal). If this is correct, it would show a very late survival of that culture. For excavation at Malvan, see Jagat Pati Joshi, 'Malvan,' S. B. Deo (ed.), *Archaeological Congress and Seminar Papers,* Nagpur, 1972, pp. 36 to 42.

20 Excavation has shown that a horizon of weathered soil, the result of centuries of desiccation, intervened between the chalcolithic and historical strata at Nevasa and elsewhere in the Deccan, G. G. Mujumdar in V. N. Mishra and M. S. Mate (ed.), *Indian Prehistory : 1964,* Poona, 1965, p. 252, and H. D. Sankalia in *Souvenir and Bulletin of the Deccan College Research Institute,* Poona, 1971, p. 20.

21 Cf. Agrawal, *op. cit.*, p. 204: 'In the metal forging technology the Harappans are the most advanced, then come the Copper Hoards, and lastly the other Chalcolithic cultures.'

and the upper Deccan after their fall, till civilizing forces from the north reached the region in the second half of the first millennium B.C. As Wheeler has aptly remarked: 'Civilization came to central India with a bang.'[22]

Eran in eastern Malwa is an apparent exception to what has been said above. Here the fortification around the settlement is believed to have been erected in the middle phase of the chalcolithic period,[23] which, according to Carbon-14 dating, started at the site towards the closing years of the third millennium. A sample from the late levels of the chalcolithic occupation of the site has been dated to 640 ± 60 B.C.., which would indicate a near-merging of the chalcolithic and early historical periods. But as the dates of the Eran samples lack internal consistency, whatever the reasons therefor may be, and in the absence of a detailed report on the excavation, it would be insecure to build conclusions on the chronology of the chalcolithic culture of the site.

3

The evidence for Harappan influences on the southern neolithic cultures is, as has been said above (section 1), extremely vague. Black-on-red pottery, one of the constituents of this culture, is ubiquitous, as designs in black show best on a red surface. To say that the neolithic folk adopted the Harappan tradition of painting pots *but not the potter's wheel*[24] is to give away the show; surely, if there was any borrowing at all, it would have been of the technology of the potter's wheel rather than of the tradition of pot-painting.

Also widespread are parallel-sided blades produced by the crested-ridge-guiding technique. The length of the blade would naturally depend on the availability of long or short silicious mineral cores out of which the blades were produced. Thus, the Harappans themselves produced short blades at sites away from the Sukkur-Rohri quarry in Sind (for example, the mature Harappa phase, Period II A, of Rangpur had only one parallel-

22 Mortimer Wheeler, *Civilization of the Indus Valley and Beyond,* London, 1966, p. 130.

23 See chapter V, section 3.

24 *Indian Archaeology 1967-68—a Review,* 1968, p. 17.

sided blade, and that too short),[25] in addition to importing cores from that quarry when and where imports were possible. Long blades are absent in the chalcolithic equipment of central India due to the obvious reason of the absence of long cores in the region. The southern sites have long, medium and short blades, in addition to non-blades and asymmetrical and non-geometric tools, all produced out of local material to satisfy local needs. Any attempt to see Harappan traits in the long blades of the southern neolithic, which produced other tool-types as well, is to ignore the factor of conditioning ecology.

That the Harappans imported gold from south India and therefore came into touch with the neolithic people is not at all likely, as gold could have come from much nearer home, e.g. Kandahar region of Afghanistan (above, p. 75).

4

Not much can at present be said about the late Harappan sites in the upper Ganga-Yamuna *doāb*. The identity of a few such sites is no longer in doubt, but entirely dubious is the derivation of the ochre-coloured ware from the late Harappan ware. It has all along been felt that long immersion under water imparted to red pottery a seemingly underfired look, rolled edges and a surface that wears off with rubbing. But it is becoming increasingly doubtful if the pottery found at different and wide-apart sites was typologically and industrially identical[26] and if its remaining under water was the result of a single flood engulfing several thousand square kilometres of land or of different water-logging at individual sites.[27] All this remains

25 Rao, *op. cit.*, 1963, pl. XVII A, 13.

26 This doubt was voiced by several participants in a seminar held in the National Museum, New Delhi, in June 1971, *Purātattva,* 5, 1971-72, pp. 2 to 28.

27 Lal surmises that there was *one* flood, resulting out of a 'tectonic movement involving the Indus and the Ganga systems, say somewhere near the source, where the Ghaggar and Yamuna basins come close together, which could have diverted some tributaries of the former to the latter.' He, however, admits that all this, including the occurrence of the flood itself, is hypothetical. B. B. Lal, 'A deluge? which deluge? another facet of the problem of the Copper Hoard culture,' *American Anthropologist,* 170, 1968, pp. 857 to 863. On the other hand, Raikes goes to the extreme of saying that from the early times the same volume of water flowed alternately

problematic at present and until all questions are answered satisfactorily and the identity of a culture or, at any rate, a distinct ceramic industry represented by the ochre-coloured ware is established, the matter has no relevance to the present study. All the scanty data at present available taken into consideration, the possibility of Harappan urbanism surviving or resuscitating in the upper Ganga basin through the late Harappan and ochre-coloured ware sites in the middle of the first millennium B.C. may be forthwith rejected, particularly as the successor-cultures of the ochre-coloured ware, namely the black-and-red ware culture of Noh and Aṭranjikhera and the Painted Grey Ware culture of Hastināpura borrowed nothing from the preceding culture, the uniformity itself of which is in doubt. Even where, for example Rupar, the Painted Grey Ware culture followed the Harappan without any other intervening culture, there is no link between the two.

The identity of some specialized forms among the Copper Hoards, with which some ochre-coloured ware was seemingly associated at certain sites, no doubt bespeaks a homogeneous culture, but nobody would now believe that the Hoards were the handicraft of Harappan refugees.[28]

5

The impressive fortification at Kauśāmbī in the central Ganga basin—an enormous mud-wall with a baked-brick

as the Yamuna and the Sarasvati, the latter a feeder of the Ghaggar, which, in turn, at one time joined the Indus; he also lays down a time-table for this cycle. R. L. Raikes, 'Kalibangan, death from natural causes,' *Antiquity,* XLII, 1968, pp. 286 to 291. This is carrying too far the interpretation of the hydrological datum (in this case the occurrence of the so-called Yamuna sand in the dry bed of the Sarasvati). That the Sarasvati was alive in Harappan times, that it was dry during the Painted Grey Ware days and that it resuscitated in the early centuries A.D., if not somewhat earlier, is likely, A. Ghosh, 'The Rajputana desert—its archaeological aspect,' *Bulletin of the National Institute of Sciences of India,* 1, 1952, pp. 37 to 42. But a regular cycle is difficult to imagine. In a hymn in the *Ṛgveda-Saṁhitā,* X, 76, 7, the two rivers Sarasvatī and Yamunā are both mentioned.

28 B. B. Lal, 'Further Copper Hoards from the Gangetic basin and a review of the problem,' *Ancient India,* 7, 1951, pp. 20 to 39; S. P. Gupta in Mishra and Mate (ed.), *op cit.,* pp. 146 to 147.

revetment (chapter I, section 3, and chapter V, section 3), extant to a height of as much as thirteen mtres—has been thought to be structurally reminiscent of the defence-wall of Mound AB of Harappa. Here then, it might be thought, is an important relic of the resurrected Harappan urban practices in the Ganga plains. The earliest stage of the fortification has been dated to 1000 B.C., mainly on the ground that the Northern Black Polished Ware emerged at the site in 600 B.C., when the defence-system had already undergone several repairs and additions, each supposed to have taken place at an interval of about seventy years. The date of the initial construction of the defences was thus, according to this reckoning, removed from the end of the Harappan cities by six centuries or so.[29]

It should, however, be noted that the repairs and additions to the defences were of a minor nature, which need not be measured by centuries or even decades. For example, the bulging at the base of the brick rampart and the consequent provision of weep-holes, repairs to the connecting passage and putting up of ancillary structures, raising the height of the rampart itself—each of which has been regarded as the activity of one Sub-period of seventy years—need not have been carried out at long intervals from each other.

The evidence of the pottery going with the early phases of the defences is equally insecure. It has nothing Harappan about it: equally uncertain is a Navdatoli affiliation, the typical Malwa Ware being absent. It may even be asserted that there is no genuine piece of the Painted Grey Ware, and it would be a mistake to include Kauśāmbī on the distribution-map of that Ware.

In short, there is nothing to establish a precocious development of Kauśāmbī, including a coinage in the ninth century B.C. About the defence-wall itself, it can be safely held that it is not as old as it has been held to be; far less is there any justification of seeing in it a Harappan trait lingering on or reappearing atavistically, with no other trait present.[30]

29 G. R. Sharma, *Excavations at Kauśāmbī, 1957-59*, Allahabad, 1960.

30 Cf. K. K. Sinha, 'Stratigraphy and chronology of early Kauśāmbī,' read at the International Seminar on Radiocarbon and Indian Archaeology, 7 to 11 March 1972, in which an origin of Kauśāmbī appreciably earlier than the Northern Black Polished Ware has been rightly questioned.

6

The eastern chalcolithic cultures, as typified by such sites as Chirand and Sonpur in western Bihar and Pandu-rajar-Dhipi in western West Bengal, with a floruit of 1300 to 700 B.C.,[31] do not come into the present picture, notwithstanding their closing-date being not far removed from the advent of the historical period. There have been no claims that any one of their elements was derived from the Harappa, except an attempt to see in the black-and-red ware of the cultures, as well as in that of the Banas and central Indian cultures, the tradition of a similar ware occurring in the lower levels of Lothal in Gujarat. In fact, it has been thought that the dispersal of the black-and-red ware was connected with that of rice-cultivation, and that it moved in diverse directions from Gujarat to central India, West Bengal, Bihar and central and upper Ganga *doāb*, sometimes with cross-connexions. But south India, where the ware occurs in profusion in the megalithic context, has not been included in this migration-pattern.[32] Such a ramble, in time and space, of a pottery-producing technique is unlikely, and for the Harappan urban tradition to travel with it is out of the question.

7

The archaeological evidence that has been put forward for the theory of lingering Harappan elements pervading large parts of India and the possibility of their giving rise to historical urbanism have been examined above. It has been shown that the elements could not have persisted long after the disappearance of the Indus civilization—mature or decaying. The only exception is the cis-Aravalli Banas culture at Gilund, where were found a structural complex, evidently a monumental building, which was exposed over an area of over 39 × 24 metres, and a wall of kiln-burnt bricks[33]—both Harappan features. But this is not surprising, as the Banas culture perhaps

31 Agrawal, *op. cit.*, 1971, p. 232.
32 *Ibid.*, map on p. 107.
33 *Indian Archaeology 1959-60—a Review*, 1960, p. 43.

originated in 2000 B.C.,[34] well within the life-time of the Harappa and was not far removed in distance from the Harappan centres to the west. No insuperable difficulty, chronological and spatial, thus exists in Harappan elements infiltrating into that culture, but it is significant that none of these features is available at other sites of the Banas culture itself, for example Ahar, which probably originated somewhat later than Gilund but lasted till later times.[35]

8

It is useless to reiterate and scrutinize all that has been said to substantiate that many later-day Hindu religio-ritualistic practices and spiritual thoughts were derived from the Harappa. The worship of Śiva-paśupati, the *liṅga* and the mother-goddess, Upaniṣadic speculations, asceticism, Jainism, Tantrism, Sāṁkhya, Yoga—quite a motley of thoughts, beliefs and practices—all have been thought to be Harappan in origin. These theories are all fanciful and do not bear scrutiny. For example, Rudra has the appellation *paśupati* in later Vedic literature not in the sense of lord of beasts in general but of cattle only,[36] which is the primary sense of *paśu*, though a comprehensive meaning of birds and domestic and wild animals is not unknown.[37] Nor has the Vedic Rudra anything to do with meditation. Thus, to see Śiva-paśupati in the well-known and much-spoken-of seal of Mohenjo-daro, which depicts wild animals, is unjustified, Similarly, Sankalia has shown that the so-called *liṅgas* of Mohenjo-daro were found in streets and

34 The date is based on Carbon-14 measurements of Ahar samples, Agrawal, *op. cit.*, p. 232.

35 D. P. Agrawal sees a few more Harappan traits in the Banas culture, which he thinks were the outcome of the employment of Harappan refugee craftsmen by the people of an intrusive west-Asian (Aryan) culture, 'C-14 dates, Banas culture and the Aryans,' *Current Science,* 5 March 1966, pp. 114 to 117. For criticism, see Dilip K. Chakrabarti, 'The Aryan hypothesis in Indian archaeology,' *Indian Studies Past and Present,* IX, 1968, pp. 355 and 356.

36 The cattle is committed to Rudra's charge; hence he is called *paśupati, Atharvaveda-Saṁhitā,* XI, 6, 9; *Śatapatha-Brāhmaṇa,* I, 7, 3, 8.

37 *Ṛgveda-Saṁhitā,* X, 90, 8.

drains and were not enshrined in rooms, as one would expect sacred objects to be.[38]

Of late, the theory of the Indus language being proto-Dravidian has gained impetus but is far from being convincingly proved. If, however, it is ultimately established beyond doubt, the question of Harappan survivals will have to be examined afresh, but even then a Harappan origin of north-Indian historical urbanism will not be proved.

9

From the socio-anthropological point of view, three Indian institutions have been thought to have originated from the Harappans on the ground that they belong to the Indian style and therefore *must have* been prevalent among the Harappans. These are (1) the caste-system, 'the roots of which *must also be seen* in the Harappan civilization;' (2) genealogical descent-reckoning or means of perpetuating the caste-status by birth, which '*must also logically have been present* in Harappan society;' and (3) memorization, which '*must also be seen* in the Harappan society'[39] (italics of the present author, to emphasize the conjectural nature of the inferences). Thus, these institutions, which are features of the Indian style, have been projected into the Harappan civilization to prove that the Indian style had already established itself in Harappan times, and then it is held that they 'have survived in the matrix of the Indian society.'[40] Such hurling of institutions. from the known to the unknown to establish their origins and bringing them down from unknown to the known to prove their persistence does not carry conviction. In the same strain, it has been thought possible that the non-disppearance of Harappan ideology (the aspects of which, it is admitted, 'we can never hope to know'[41]) and the structure of the Harappan society were, in an undefined way, responsible for the second urbanization of India, as 'it is within

38 H. D. Sankalia in *Proceedings of the Fifty-seventh Indian Science Congress*, Kharagpur, 1970, pp. 182 and 183.

39 Malik, *op. cit.*, pp. 105 to 109.

40 *Ibid.*, p. 122.

41 *Ibid.*, p. 35.

the laws and generalizations of certain social sciences.'[42] It has been said that the use of ethnographic material to interpret the past must inevitably involve an element of subjectivity,[43] and this is borne out by the views quoted in this paragraph.

Archaeologists and anthropologists must recognize the phenomenon of the loss of ancient cultures. For example, what does survive of the Sumerian civilization in present-day Iraq, or of the dynastic civilization of the Nile in modern Egypt, or of the Sabaean-Himyaritic civilization in the contemporary life of south-Arabian peninsula? In every civilization there is a point from which cultural traits can be traced onwards down to contemporary times, and so far as the Indian civilization is concerned, the Indus civilization is not that point.

10

To sum up, the conclusion is that Harappan urbanism could not have even remotely produced or inspired the historical urbanism, for the simple reason that there is no perceptible link between the Harappa and the later Indian cultures. There are wide gaps, either temporal or spatial or both, for any infiltration to have possibly taken place. So far as it can be discerned at present, the Indian style could not have taken its origin before the spread of 'Sanskritization', when only the Great Tradition and the Little Tradition[44] of Indian culture met, mixed with and interacted upon each other. This process has been the key-note of Indian culture for well-nigh three millennia but could not have been possible earlier for the reason that prior to that the operation of Sanskritization had not been set in motion, nor had the Great and Little Traditions met each other.

42 Malik, *op. cit.*, pp. 144 and 145; also p. 54, where any inferential, inductive and speculative (in the traditional and 'pseudo-historical' sense) nature of these arguments is denied, as they are 'tempered by laws and generalizations of certain social sciences.'

43 T. P. O'Brien in *Bulletin of the Institute of Archaeology,* University of London, 7, 1967, p. 142.

44 Robert Redfield, *Peasant Society and Culture,* Chicago, 1956, pp. 69 to 76.

11

If then there was no survival or revival of any older tradition in the establishment of cities in the early historical period, are we to look for sources from beyond India? This question too is not difficult to answer. An apparent source of inspiration may be the Achaemenid empire of Persia, but this is not possible, for where were the Persian cities of this period? At Pasargadae, begun by Cyrus in the middle of the sixth century B.C., there was no city as such; 'it was indeed a vast camp, surrounded by a retaining wall, within which, amid parks and gardens, rose palaces and temples'.[45] It has been thought that the population, still very near to its ancestral nomadism, lived in tents.[46] In the absence of permanent habitations of citizens, Pasargadae does not qualify as a city. Persepolis, the next capital, started by Darius I and completed by his successors, was no better in this regard. At Susa, the destroyed capital of the Elamites, Darius built a strong citadel and his palace and *apadana* over its ruins; separated from the palace by a broad avenue were the houses of courtiers, officials and merchants.[47] Here was the semblance of a city, though far from an integrated settlement humming with civic activities. In fact, these capitals were nucleated around the emperor so long as he was in station. Without the emperor they had no viable existence and were only 'simultaneously the centre and expression of a suddenly-risen political power.'[48] The interplay of variables that gave rise to cities elsewhere was absent in the Achaemenid period.

Persian influence has been seen in 'supplementing and stimulating' the urban development of India, as a result of

45 R. Ghirshman, *Iran,* Pelican, Harmondsworth, 1954, p. 134.
46 Mortimer Wheeler, *Flames over Persepolis,* London, 1968, p. 33.
47 Ghirshman, *op. cit.,* p. 164.
48 Sabatino Moscati, *The Face of the Ancient Orient,* tr. from Italian, Mitchell, third impression, 1963, p. 288. Cf: 'It seems that the Achaemenids did not build cities in the true sense . . . Neither Pasargadae nor Persepolis has the appearance of permanent "capitals", and they could not have functioned as such . . . Only temporary facilities were provided for the king and his entourage . . . It seems that the Persians did not develop integrally conceived, coherent, completely organized large-scale planning schemes before the Seleucid and Sassanian periods, when they came under Hellenic and Roman influences respectively.' Paul Pampl, *Cities and Planning in the Ancient Near East,* London, 1968 (?), pp. 118 and 119.

Persian 'colonization' of the frontier regions in the later half of the sixth century B.C.[49] But there was no colonization: only in the course of his vast imperialistic expansion an Achaemenid emperor conquered the Gandhāra region and included it in his empire. Any deductions from this fact are unwarranted: excavation at Charsada and Taxila I (Bhir Mound), which two cities alone could have anything to do with Persia, has revealed nothing Persian about them,[50] with the possible exception of an insignificant number of objects that found their way from Persia.[51] It is also highly doubtful if the weight of the bent-bar punch-marked coins of the Gandhāra region was made to conform to the standard of Persian double *sigloi*.[52] The heart of India remained unaffected by the Persian occupation of the north-western fringe of the sub-continent during the period when the cities started originating.

Another neighbouring land, central Asia, which never reached the urban stage in the Bronze Age, though it had some monumental buildings in that period,[53] is believed to have developed urban settlements from the sixth to the fourth centuries, at such sites as Gyaur-Kala (Merv) in southern Turkmenia and Kalaly-Gir and Kyuzeli-Gir in Khwarezm.[54] Bactra itself is supposed to have an Achaemenid nucleus, though this is not established by excavation. These stray examples, as yet nebulous, could not have any bearing on the urbanism of India. It was only with and after Alexander that a few cities, entirely Greek in character and without any appreciable effect on the

49 Wheeler, *op. cit.*, 1966, p. 48.

50 See above, p. 49, n. 34. It is impossible to believe now that iron came to India or was, at any rate, popularized as a result of Achaemenid occupation, Mortimer Wheeler, *Charsada,* Oxford, 1962, pp. 43 to 46.

51 It is not unlikely that agate eye-beads of Taxila came from the Mediterranean region through Persia, Horace C. Beck, *Beads from Taxila,* Memoirs of the Archaeological Survey of India, 65, 1941, pp. 5 and 6, and John Marshall, *Taxila,* I, Cambridge, 1961, p. 103.

52 E. H. C. Walsh in Marshall, *op. cit.,* II, p. 844; also *Punch-marked Coins from Taxila,* Memoirs of the Archaeological Survey of India, 59, 1939, p. 3.

53 V. M. Masson, 'The urban revolution in south Turkmenia,' *Antiquity,* XLII, 1968, pp. 178 to 187.

54 Aleksandr Belenitsky, *Central Asia,* Archaeologia Mundi, Geneva, 1968, p, 55.

local population,[55] came into being in southern central Asia and northern Afghanistan,[56] but by then north India was studded with cities.

55 The same incompatibility as existed in Iran, Ghirshman, *op. cit.*, p. 242, must have prevailed between the Greek cities and the countryside in central Asia as well, the circumstances of the founding of the cities being the same.

56 There is no certainty about the date of the establishment of Aï Khanun, a purely Greek *polis* in extreme north-east Afghanistan on the Darya-i-Panj, the head of the Oxus. Wheeler says: 'Here, at last, it would appear, was the handiwork of Alexander, or, at least, one of his close associates,' *op. cit.*, 1968, p. 76, and this is the view of the excavator, P. Bernard, as well. Elsewhere, however, Wheeler inclines to the view that the *polis* was established by the Bactrian Greeks a century or so later, *ibid.*, pp. 48 to 86.

CHAPTER VII

Conclusion

EVEN through the screen of sacerdotal literature one can see that the later Vedic age was a departure from the earlier one. By then the focus of Aryan activity had shifted to the more easterly region, with the tribes of the west receding in importance. There had been a change in the grouping of tribes, the all-important Bharatas and Anus and Druhyus of the earlier age fading into the background and the newly-risen Kuru-Pañcālas coming into prominence and becoming models of good conduct, with other tribes spread farther east and south. Politically the age saw the rise of kingdoms under rulers who assumed much more enhanced powers, with definite territories to rule over and with a new splendour and prestige. Economically, there was a greater diversity of occupations, leading to specialization and rise of merchants. It may be legitimately inferred that the exploitation of the newly-colonized Ganga plains, perhaps accelerated by iron implements, gave society the capacity to produce a surplus of food-stuff, presumably with the help of the autochthonous population, admitted into the new society; this surplus, when required and produced, could be diverted, through authority and trade, to support the non-food-producing population. The stage for the rise of cities in the early historical period was thus set, and they did rise. No survival nor revival of the long-dead Harappan urban tradition was necessary, and it is certain that there was none. Any motivating foreign influence can be easily ruled out, as it could not have come from any quarter. In building their cities in the early historical period the people were writing on a clean slate, with no Harappan nor any other mark on it.

All these developments took place in north India. They were to spread to other parts of the country only later on, largely as a result of impact from that region. There is therefore every justification for having confined the present study mainly to the north.

No generalization on the pattern of the distribution of cities

in north India is possible. On the one hand, we have two cities, Taxila and Charsada, in the north-western corner of the sub-continent, the former situated on an insignificant nullah and the latter on a more respectable stream of the Swat-Kabul complex; on the other hand, we have a considerable number of them on the banks of the great rivers of the Ganga-Yamuna system, including the feeders rising from the central highlands. The zones are widely separated from one another in space and ecology (see map at the end). How far ecology influenced the cities of each of the three zones should be a matter of future study.

One wonders if the process of the establishment and development of the cities could be called another Urban Revolution. Our limited present-day knowledge on the material transformation of rural habitations into urban ones would tend to indicate that the revolution, if there was any, was slow. But much more work in the archaeological field is necessary to detect and understand the process. Meanwhile, the evidence at our disposal is too insecure for the building up of any theory on, or for an extensive application of any existing abstract theories to, the cities of the age we have been concerned with in the preceding pages. All that can be said is that the situation was favourable for the rise of cities, and they did not lag behind.

Nor can much be said at present about the unvaryingness or otherwise of the cultural components represented by these cities individually. While in those in the Ganga plains a broad uniformity in the ceramic industries is presented by the Northern Black Polished Ware and other wares associated with it, it is not known how far the uniformity extended to other material artefacts and cultural aspects, such as iron and other objects, that could go to show if each city evolved independently within the framework of the contemporary cultural pattern or if the aspects diffused from one or two centres. These are some of the problems that the future archaeologist of early historical urbanism has to deal with.

IMPORTANT EARLY HISTORICAL CITIES

100 0 100 200 300 400 KILOMETRES

HEIGHT ABOVE 500 METRES

ANCIENT CITIES

MODERN CITIES

68° 72° 76° 80° 84° 88°

32° 28° 24° 20°

R. KABUL

CHARSADA

PESHAWAR

TAXILA

RAWALPINDI

R. JHELUM

R. CHENAB

R RAVI

BEAS

R. SUTLEJ

R. INDUS

HASTINĀPURA

DELHI

R. GANGA

AHICCHATRĀ

TILAURA-KOT

KĀMPILYA

SĀṄKĀŚYA

MATHURĀ

ŚRĀVASTĪ

ATRAÑJIKHERA

AYODHYĀ

VAIŚĀLĪ

PĀṬALIPUTRA

R. CHAMBAL

R. BETWA

R. YAMUNA

ALLAHABAD

KAUŚĀMBĪ

VĀRĀṆASĪ

CAMPĀ

RĀJAGṚHA

ERAN

UJJAIN

VIDIŚĀ

TRIPURĪ

CHANDRAKETUGARH

BHOPAL

CALCUTTA

ARABIAN SEA

R. NARMADA

R. TAPTI

R. MAHANADI

SISUPALGARH

BAY OF BENGAL

Index

ābhīra, 37
Achaeminid(s), 28, 49, 57, 86, 87
Adams, Robert, McC., 21, 24
Ādarśa, 57
Adarśana, 57
Afghanistan, 4, 7, 88
Agrawal, D. P., 2, 5, 14, 15, 63, 64, 76, 77, 83
Agrawala, V. S., 33
Ahar, 74, 76, 83
Ahar inscription, 50
Ahicchatrā, 9, 61, 69, 75
Aï Khanun, 88
Ajātaśatru, 64, 68
Alamgirpur, 9, 10
Alexander, 62, 87, 88
Allahpur, 9
Allchin, Bridget and Raymond, 2; F. R., 37
Altekar, A. S., 44
Amara-koṣa, 37, 45, 46
Amaravati, 15
Ambkheri, 9
America(n), 17, 24. See also meso-America.
Anus, 89
Āpastamba, *Ā.-Dharma-sūtra,* 53, 57
Arabian, A. peninsula, 58, 85
Aravallis, 57
argillaceous art, *s. v.* terracotta
Arrian, 66
Artha-śāstra, s. v. Kauṭilya
Aryan, Indo-Aryan, 4, 5, 6, 7, 8, 33, 45, 89
Āryāvarta, 57
ash-mound sites, 37
Aśoka, 4, 12, 14, 26, 27, 28, 52, 56, 68
Aṣṭādhyāyī, s. v. Pāṇini
Aśvaghoṣa, 44, 50
Aśvapura, 44
Atharvaveda-Saṁhitā, 6, 8, 83
Atranjikhera, 5, 9, 60, 69, 75, 80
Aupapādika-sūtra, 50
Austric, A.-speaking, 8
Autha, 9
Avanti, 13
ayas, 5, 10
Ayodhyā, 50, 52
Azes, 61

Bacon, Francis, 56
Bactra, 87
Bactrian, 88
Bairat, 5
Bajpai, K. D., 63
Baluch, Baluchistan, 1
Banas culture, 82, 83
Banerjee, N. R., 5, 6, 12, 63
Basham, A. L., 33, 58
Basti, 26
Baudhāyana, *B.-Dharma-sūtra,* 53, 57
beads, 10, 87
Beal, Samuel, 44
Beck, Gus W. Van, 58
Beck, Horace C., 87
Belenitsky, Aleksandr, 87
Bernard, P., 88
Besnagar, 69
Bhagavatī-sūtra, 35, 55
Bhandarkar, D. R., 46
Bharatas, 89
Bharukaccha, 49
Bhir Mound, *s. v.* Taxila
Bihar, 15, 33, 35, 82
Bimbisāra, 64
black-and-red ware, *s. v.* pottery
blades, 74, 78-79
Bloomfield, Maurice, 6
Bodh-Gaya, 58
Bose, Atindranath, 55
Brahmagiri, 11, 12
Brāhmaṇa(s), 26, 33, 36, 48, 54, 57
Brāhmaṇical, 56
Brāhmī, 27. See also script

Bṛhadratha, 44
Bṛhat-kathā-koṣa, 37
brick, baked, burnt, mud, unbaked, 8, 9, 10, 14, 26, 50, 59, 62, 64, 65, 66, 67, 68, 69, 70, 80, 82
bronze, 3. See also copper-bronze
Bronze Age, 3, 19, 22, 87. See also Copper-Bronze Age
Buck, C. D., 7
Buddha, 16, 25, 26, 28, 34, 54, 57, 64, 65, 68
Buddha-carita, 44
Buddhaghoṣa, 44
Buddhist(s), 13, 16, 25, 35, 44, 54, 57, 58, 68
Bulandibagh, 66
Bulandshahr, 9, 50

caitya, 26
Campa, 43
Campā, Campāvatī, 15, 43
Caṇḍāla, 36, 39
Candragupta Maurya, 66
Carbon-14 dates, determinations, measurements, 2, 5, 11, 14, 62, 63, 64, 76, 77, 78, 83
Carpenter, J. Estlin, 16, 46
Caste, c.-system, 28, 35, 84
Ceramics, *s.v.* pottery
Chak 80, 9
Chakravarti, Dilip K., 83
chalcolithic, c. cultures, 7, 74, 76, 77, 78, 79, 82. See also neolithic-chalcolithic
Chandraketugarh, 66
Charsada, 62, 69, 87, 90
Chicago, C. school, 28, 30
Childe, V. Gordon, 3, 7, 8, 19, 23, 24, 25-28, 59, 67
China, 30
Chirand, 69, 82
Chowdhury, K. A., 10
citadel, 52, 64
coin(s), coinage, 10, 14, 22, 46, 49, 59, 61, 63, 71-72, 81, 87
commerce, *s.v.* trade
copper, 5, 9, 10, 20
copper-bronze, 7, 8, 9, 14. See also bronze
Copper-Bronze Age, cultures, 2. See also Bronze Age
Copper Hoard(s), culture, 3, 77, 80
Cyrus, 86

Dalton, E. T., 8
Daniel, Glyn, 19
Dardarapura, 44
Darius I, 28, 49, 86
Darya-i-Panj, 88
Daśapura, 50
Daśārṇa, 35
defences, defensive wall, *s.v.* fortification
Deo, S. B., 63, 77
Dharma literature, 16
Dīgha-nikāya, 16, 46, 47, 48
Dikshit, M. G., 70, 71
diteh, *s.v.* moat
Divyāvadāna, 36, 47, 50
doāb, 5, 73, 75, 79, 82
Droṇa, 58
droṇa-mukha, 37, 40, 47
Druhyus, 89
durga, 47, 48

Egypt, Egyptian, 3, 7, 23, 24, 30, 48, 85
Elamītes, 86
Epic(s), 16, 43, 44, 47, 56
Eran, 62-63, 64, 78
European, North, 8

Fa Hien, 68
Fick, Richard, 52
Fleet, J. F., 50, 52
fortification(s), defences, defensive wall(s), rampart, *vapra,* 11, 14, 26, 45, 49, 51, 59, 61, 62-67, 78, 80-81
frankincense route, 48

gaṇas, 35
Gandak, 33
Gandhāra, 35, 49, 57, 87
Ganga, 4, 5, 7, 8, 13, 14, 15, 25, 30, 32, 33, 60, 73, 75, 79, 80, 81, 82, 89, 90
gate, gateway, 51, 61, 66

Gaur, R. C., 9, 60
Germans, 8
Ghaggar, 79, 80
Ghishman, R., 86, 88
ghoṣa, 36, 37
Ghosh, A., 2, 15, 61, 65, 69
Ghosh, S. S., 10
Ghoṣitārāma, 67, 80
Gilund, 82-83
Girnar, 14
Godavari, 35
gold, 75, 79
go-niṣādi-niviṣṭa-grāma, 37
Gotama, *G.-Dharma-sūtra,* 53
Gotama-Rāhūgaṇa, 33
graffiti, 75, 76
grāma, 36, 37, 38, 46, 47
grāmya, 55
Greek(s), Indo-Greek(s), 12, 61, 65, 87, 88
Gujarat, 35, 73, 74, 82
gulma, 48
Gupta (dynasty), 16
Gupta, S. P., 80
Gyaur-Kala, 87

Hadramaut, 48
haematite, 75
hala, 7, 8
Hallur, 11
Harappa, Harappan(s), *s.v.* Indus
Hariṣeṇa, 37
Harris, Marvin, 21
Hastin, 43
Hastināpura, 5, 9, 10, 11, 14, 43, 67, 69, 75, 80
Hastipura, 44
haṭṭa, 46
Hauser, Philip M., 21
Hellenic, 86
highway, *s.v.* road
Himalayas, 33
Hiuen Tsang, 44, 68
Hopkins, E. Washburn, 17, 47
horse, 76

import, 3, 10, 14, 24, 28
Indo-Aryan, *s.v.* Aryan
Indo-European, 7
Indo-Greek, *s.v.* Greek
Indo-Parthian, *s.v.* Parthian
Indraprastha, 52
Indus, Harappa(n) civilization, cities, people, etc., 1, 2, 3, 5, 7, 14, 24, 30, 48, 58, 63, 72, 73, 74, 75, 76, 78, 79, 80, 81, 82, 83, 84, 85, 89; I. language, 84; I. script, 27, 75, 76
Indus (river), 4, 15, 30, 32
Iraq, 85. See also Mesopotamia
iron, 5, 7, 8, 10, 11, 12, 13, 14, 15, 63, 89, 90
Iron Age, 9, 10. 11, 12, 13, 15, 20, 29
Isila, 12

Jaina, Jainism, 13, 16, 28, 35, 50, 54, 57, 83
janapada, 10, 11, 13, 15, 22, 25, 26, 32, 33, 34, 35, 36, 48
Jātaka(s), 10, 16, 36, 44, 52, 54, 55, 57
Jefferson, Thomas, 53
Jinaprabha-Sūri, 44
Jinavijaya, Muni, 44
Jīvakāmravana, 68
Joshi, Jagatpati, 63, 75
Joshi, M. C., 8
Jyotiṣa, 27

Kalaly-Gir, 87
Kali (river), 60
Kalibangan, 7
Kālidāsa, 45, 55
Kaliṅga, 28
Kāma-sūtra, s.v. Vātsyāyana
Kamboja, 35
Kandahar, 75, 79
Kangle, R. P., 46
Kapila, 44
Kapilavāstu, 44, 50
Karnatak, 11
karvaṭa, 37, 47. See also *kharvaṭa*
kārvaṭika, 47. See also *khārvaṭika*
Kathiawar, 74
Kauśāmbī, 11, 15, 26, 29, 43, 44, 61, 62, 64, 67, 69, 70, 80, 81
Kauṭilya, K.'s *Artha-śāstra,* 17, 32,

35, 36, 39, 45, 46, 47, 48, 51, 52, 55
Kāvīra(verī)paṭṭana, 49
Keith, A. B., 37, 45
Khāravela, 28
Kharoṣṭhī, 27. See also script
kharvaṭa, 47. See also *karvaṭa*
khārvaṭika, 41, 47. See also *kārvaṭika*
kheṭa, 37
Khuddaka-pāṭha, 44
Khwarezm, 87
Kosala, 13, 33, 34
Kosambi, D., 44
Kosambi, D. D., 7, 33
Kramer, S. M., 76
Krishna (river), 15
Kristopal, Irvin, 53
Kṣatriyas, 33, 35, 57
Kṣaudrakya, Kṣudraka, 33
Kujūla Kadphises, 61
Kupgal, 37
Kuru-Pañcāla, 89
Kuśa, 43
Kuśāgra, 43
Kuśāgrapura, 43, 44
Kuśāmba, 43, 44
Kuśāvatī, 43
Kushan, 61, 65, 67, 69
Kuśīnagara, 47, 58
Kutch, 63
kuṭī, 36
Kyuzeli-Gir, 87

Lal, B. B., 14, 61, 66, 69, 76, 79, 80
Lala Aditya Narain, 68
Lalita-vistara, 50
Lalittha, 44
Lal-Qila, 9
lanes, 30, 50
lāṅgala, 7
Laṅkā, 50, 51
Law, Bimala Churn, 57
Lefmann, S., 50
liṅga, 83
Lothal, 58, 82
Lumbinī, 57
Lustrous Red Ware, *s.v.* pottery

Macdonnell, A. A., 37, 45
Madhu, 43
Madhu(thu)rā, 43. See also Mathura
Magadha, 13, 28, 34, 67
Mahābhārata, 16, 44, 45, 52
Mahā-hrada, 58
mahā-janapada, 13, 16, 34, 35
Mahā-parinivvāna-sutta, 16, 46, 47
Mahā-vastu, 35
Mahāvīra, 34, 54
Maheśvara, 45
Mahiṣmat, 43
Māhiṣmatī, 43
Mālava, Mālavya, 33
Mālavikāgnimitra, 55
Malaya, 35
Malik, S. C., 2, 73, 84-85
Mālinī, 43
Malvan, 77
Malwa, 74, 76, 78
Malwa Ware, *s.v.* pottery
Mandasor inscription, 50
Maṇi-mekalai, 52
Manu, *M.-smṛti*, 48, 52, 53, 54, 55, 57
Marshall, John, 49, 61, 62, 67, 70, 71, 87
Martîndale, Don, 17, 28
Maski, 12
Masson, V. M., 87
maṭamba, 37
Mate, M. S., 6, 12, 77, 80
Mathura, 9, 69. See also Madhu(thu)rā
Maurya(n), 13, 14, 15, 27, 57, 66
Māvella, 44
Maya, 52
McCrindle, J. W., 66
Medinī, 46
Mediterranean, 87
megalith(ic), 11, 12, 82
Megasthenes, 52, 53, 66
Megha-dūta, 55
Mehta, Ratilal M., 10, 36, 52, 54
Menander, 50
Merv, 87
meso-America, 23, 30
Mesopotamia, 24. See also Iraq
Mexico, 38

Milinda-pañha, 46, 50
Mishra, Vijayakanta, 44
Mishra, V. N., 6, 12, 77, 80
Mithi, 43
Mithilā, 34, 43, 52
Mitra, D., 65, 69
moat, ditch, 49, 51, 61, 63, 66
Mohapatra, G. C., 11
Mohenjo-daro, 58, 85
monasteries, 68
Monier-Williams, M., 45
Moscati, Sabatino, 86
mother-goddess, 83
Moti Chandra, 58
Mughal (dynasty), 75
Mughal, Mohammad Rafique, 1
Mujumdar, G. C., 77
mūla-nagara, 45, 47, 67
Mumford, Lewis, 21, 22
Mysore, 11, 75

nagara(ī), 36, 38, 41, 45, 46, 47 49
Nagaraja Rao, M. S., 11
Nālandā, 55
Nandas, 13, 28, 35, 57, 66
Nasik, 70
Navdatoli, 70, 74, 76, 81
neolithic, 3, 11, 74, 78, 79
neolithic-chalcolithic, 74. See also chalcolithic
Nepalese *tarai,* 65
Neuwirth, Gertrude, 17, 28
Nevasa, 70, 71
nigama, 38, 42, 45, 46, 47, 49, 53
nīla-lohita, s.v. pottery
Nile, 85
niṣka, 10
nīvāra, 10
Noh, 5, 9, 10, 75, 80
Northern Black Polished Ware, *s.v.* pottery

O'Brien, T. P., 85
ochre-coloured ware, *s.v.* pottery
Old World, 23, 24, 30
Orissa, 35, 61, 65
Oxus, 88
Painted Grey Ware, *s.v.* pottery
Pakistan, 35
palace, 26, 29, 67
Pali literature, texts, 16, 28, 35, 36, 38, 45, 49, 68
pallī, 37
Pampl, Paul, 86
Pañcāla, 33, 65
Pāṇḍavas, 52
Pande, B. M., 1, 76
Pandey, M. S., 6
Pandu-rajar-Dhipi, 82
Panigrahi, K. C., 65, 69
Pāṇini, P.'s *Aṣṭādhyāyī,* 10, 32, 33, 37, 44, 51, 57, 58
Panjab, 33, 57
Papañca-sūdanī, 44
parikhā, 51. See also moat
Pargiter, F. E., 43, 44
Parthian(s), Indo-Parthian(s), 61, 67
Pasargadae, 86
Pāṭaliputra, 44, 46, 53, 57, 66, 68
Patañjali, P.'s *Mahā-bhāṣya,* 33, 36, 37, 41, 57, 58
Patna, 66
paṭṭana, pattana, 37, 45, 47, 55
paura-jānapada, 56
Persepolis, 86
Persia(n), 28, 49, 86, 87
phāla, 8
pharaohs, 3, 23
Pipra, 44
Piprawa, 26, 44
Pipri, 44
plough, 3, 7, 8, 19, 20, 30
Polāsapura, 15
port-towns, 48, 49
pottery, ceramics, ware, 6, 10, 14; *āma,* 6; black-and-red ware, 5, 6, 75, 78, 80, 82; Lustrous Red Ware, 74, 76, 77; Malwa Ware, 81; *nīla-lohita,* 6; Northern Black Polished Ware, 14, 15, 17, 59, 60, 62, 63, 64, 65, 67, 68, 69, 70, 71, 81, 90; Painted Grey Ware, 5, 6, 9, 10, 11, 14, 17, 59, 60, 63, 71, 75, 80, 81; ochre-coloured ware, 6, 9, 10, 75, 79, 80; red ware, 6
prākāra, 51. See also fortification
Prakash, 71, 74, 75

Prakrit, 4
Pratyagra, 44
Pulindas, 39
pur, 37, 45
pura(*ī*), 41, 45, 48, 49
Purāṇa(s), Purāṇic, 43, 44
Purana-Qila, 9
Puṣkala, 43
Puṣkalāvatī, 43, 62
puṭa-bhedana, 42, 45, 46
pyramids, 7

Raikes, R. L., 80
rājadhānī, 47
Rājagṛha, R.-Girivraja, Rajgir, 15, 43, 44, 55, 58, 68; New Rajgir, 64, 65; Old Rajgir, 68
Rajghat, 62, 64, 69
Rajasthan, 5, 35, 74
Rājpūt, 35
Rāma, 43
Ramachandran, K. S., 1
Rāmāyaṇa, 16, 43, 45, 50, 51, 52
rampart, *s. v.* fortification
Rangpur, 73-74, 75-77, 78
Rao, M. B. 20
Rao, S. R., 73, 74, 75, 76, 79
rāṣṭra, 35
Rāṣṭrakūṭa, 76
Ray, Amita, 41
Ray, S. C., 71
Ray, Udayanarayan, 47
Redfield, Robert, 38, 39, 85
Reissman, Leonard, 29, 31, 38
Ṛgveda-Saṁhita, 4, 7, 8, 80, 83
Rhys Daivds, C.A.F., 46
Rhys Davids, T.W., 16, 45, 46, 56
rice, 10, 82
ring-well, 70-71
road, highway, street, 28, 30, 48, 49, 50, 51, 52. 61, 83
Roman, 28, 49, 86
Roruka, 49
Roy, Sita Ram, 25, 65, 69
Roy Burman, B. K., 39
Rudra, 83
Rupar, 9, 80

Sabacan-Himyaritic, 58, 85
Śabaras, 39
sabhā, 56
Sadānīrā, 33
Sāgala, 46, 50
Saharanpur, 9
Sahni, D. R., 50
Śaka, 61
Sāketa, 15, 16
śākhā-nagara, 41, 45, 47
samājas, 56
saṁgrahaṇa, 41, 47
samiti, 56
Sāṁkhya, 83
saṁvāha(*na*), 36, 37, 38
Sanchi, 68
sanitary arrangements, 70-71
Sankalia, H. D., 70, 71, 77, 83, 84
Śāṅkāśya, 58
sanniveśa, 37
Sanskritization, 85
saptāṅga, 35
Sarasvati (river), 33, 57, 80
Sarkar, H., 76
Sarnath, 58, 68
Sassanian, 86
Śatapatha-Brāhmaṇa, 9, 33, 83
Sātavāhana, 71
Saundara-Nanda, 44, 50
Sauvīra, 49
Sāyaṇa, 6
Schnore, Leo F., 21
script, writing, 10, 14, 23, 24, 26, 27, 59. See also Brāhmī, Indus, Kharoṣṭhi
sculpture, 59, 60
seal, 83
Selencid, 86
Sen, Mohit, 20
Senart, E., 35
sewerage, 66
Sharma, Dasaratha, 37
Sharma, G. R., 61, 69, 70, 71, 81
Sharma, Ram Sharan, 7, 16, 20
Sharma, Y. D., 67, 70
sigloi, 49, 87
Silappadikāram, 52
silver, 14, 28
Siṁhapura, 44
Siṅd, 78

Sinha, B. P., 6, 25, 65, 68, 69
Sinha, K. K., 9, 65, 81
sīra, 7
Sircar, D. C., 34
Sirjamski, John, 29
Sirkap, *s.v.* Taxila
Sisupalgarh, 61, 65
sītā, 7
Śiva-paśupati, 83
Śivi, 35
Siyadoni inscription, 50
Sjoberg, Gideon, 21, 26, 30
Smith, H., 44
soak-wells, 70
Sonpur, 69, 82
Śrāvasta, 43, 44
Śrāvastī, 9, 15, 43, 44, 58, 65
Stede, William, 45
sthānīya, 45, 46, 47
Sthūla-sikta, 58
Strabo, 65
street, *s.v.* road
stūpas, 25, 26, 67, 68
Subbarao, Benapudi, 2
suburbs, 54
Śūdra, 36
Sukkur-Rohri, 78
Śulba-sūtras, 27
Sumer(ian), 2, 3, 22, 23, 27, 29, 30, 76, 85
Śuṅga, 69
Surkotada, 63
Śūrpāraka, 49
surplus, 3, 8, 19-21, 23, 25, 89
Susa, 86
Suvarnagiri, 12

Taittirīya-Āraṇyaka, 45
Taittirīya-Saṁhitā, 8, 9
Takṣa, 43
Takṣaśilā, *s.v.* Taxila
Tāmralipti, 49
Tantrism, 83
Tattānandapura, 50
Taxila, Bhir Mound, Sirkap, Takṣaśilā, 15, 28, 30, 43, 46, 49, 57, 60, 61, 62, 67, 68, 70, 71, 87, 90
temple(s), 19, 22, 23, 25, 26, 27, 29, 48
terracotta, argillaceous art, 10, 27
Thapar, B. K., 12, 15, 71, 76
Tilaurakot, 65, 69
Tilpath, 9
tīrthas, 58
Toynbee, Arnold, 18, 19, 28
trade, commerce, 2, 3, 7, 14, 22, 24, 28, 34, 39, 48, 49, 52, 71, 89
Tradition, Great and Little, 85
Trautman, R., 17
Treckner, V., 46
Tripurī, 70
Turkmenia, 87
Tuṣṇī-Gaṅga; 58

Uḍayana, 26
Ujjain, 11, 15, 30, 62, 63, 64, 69
umland, 54
Upaniṣadic, 16, 83
Uparicara, 44
Upāsnāna, 58
Urban Revolution, 24, 90
Utnur, 37
Uttara-Pañcāla, 44
Uttar Pradesh, 44
Uvāsaga-dasāo, 15, 50, 54

Vāgurikas, 39
Vaidya, P. L., 15, 50
Vaiśālī, 25, 28, 43, 50, 58, 65, 69
Vaṅga, 35
Vāṇiyagāma, 50
vapra, s.v. fortification
Vārāṇasī, 15, 52, 58, 64, 68
Vasiṣṭha, *V.-Dharma-sūtra,* 57
Vasu, 43
Vasumatī, 43
Vāsudeva, 61
Vatsa, 13
Vātsyāyana, V.'s *Kāma-sūtra,* 47, 56
Veda(s), Vedic, 4, 5, 6, 7, 8, 10, 16, 22, 26, 27, 32, 33, 45, 83, 89
Veṇuvana, 68
Videgha-Māthava, 9, 33
Videha, 33, 34
Vidiśā, 68, 69
vijita, 35
Vinaya-piṭaka, 36, 37
Viśāla, 43

viṣaya, 35
Vividha-tīrtha-kalpa, 44

Wagle, Narendra, 34, 36, 37, 38, 46, 47
Waldschmidt, Ernst, 2
Walsch, E.H.C., 87
ware, *s.v.* pottery
Weber, Max, 17, 28
West Bengal, 82
wheel, 3
Wheeler, Mortimer, 1, 11, 12, 15, 26, 27, 62, 69, 75, 78, 86, 87, 88
Woods, F., 44
writing, *s.v.* script

Yadu, 44
Yakṣa-figures, 27
Yājñavalkya-smṛti, 57
Yamuna, 5, 30, 73, 75, 79, 80, 89
Yoga, 83
Yucatán, 38

The book presents a study of the phenomenon of the emergence of the city in the early historical period of India, which ushered in other innovations as well in about 550 B.C. The study is primarily based on literary and archaeological sources, the author's intimate acquaintance with both having stood him in good stead. A few sociological theories on urban development in different climes have been examined along with their applicability to the conditions of early historical India. Lastly, whether the historical city could be a survival or revival of the Indus urbanism or an idea borrowed from outside has been critically assessed.